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Water Resources Data
Kentucky
Water Year 1986

ORIGINAL

COMPLETED

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT KY-86-1
Prepared in cooperation with the Commonwealth of Kentucky
and other agencies

October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

Water Resources Data Kentucky

Water Year 1986

by S.G. Toms, C.J. Sholar, and D.D. Zettwoch

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT KY-86-1

Prepared in cooperation with the Commonwealth of Kentucky
and with other agencies

DEPARTMENT OF THE INTERIOR

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Louisville, Kentucky 40217

1987

PREFACE

This volume of the annual hydrologic data report of Kentucky is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and water quality provide the hydrologic information needed by state, local, and federal agencies, and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Survey policy and established guidelines. Most of the data were collected, computed, and processed from the District and field offices. Personnel in charge of the District and field offices are:

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Water-resources data for the 1986 water year for Kentucky consists of records of stage, discharge, and water quality of streams; stage and water levels of wells. This report contains discharge records from 103 gaging stations; suspended-sediment data for 26 stations (11 daily); daily temperature records for 14 stations; daily specific conductance for 12 stations; ground-water levels for 9 continuous-record wells and 102 partial-records wells; water-quality data from 26 surface-water stations sampled at regular intervals; and miscellaneous temperature and specific concuctance data from 81 gaging stations. Also included are 77 partial-record crest-stage sites. Data collected at various miscellaneous sites are also published. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Kentucky.

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CONTENTS

Page
Preface ..... iii iv
List of gaging stations, in downstream order, for which records are published ..... vi vii
List of ground-water wells, by county, for which records are published ..... xi xii
Introduction 1
Cooperation 2
Summary of hydrologic conditions 2
    Surface water 2
    Quality of Water 4
    Sediment 5
    Ground-water levels 6
Special networks and programs 10
Explanation of records 10
    Station identification numbers 10
        Downstream order system 11
        Latitude-Longitude system 11
    Records of Stage and Water Discharge 13
        Data Collection and Computation 13
        Data Presentation 14
        Identifying Estimate Daily Discharges 17
        Accuracy of the records 17
        Other records available 18
        Records of discharge collected by agencies other than the U.S. Geological Survey 18
    Record of Surface-Water Quality records 18
        Classification of records 18
        Arrangement of records 19
        On-site Measurements and Sample Collection 19
        Water Temperature 20
        Sediment 20
        Laboratory Measurements 21
        Data Presentation 21
        Remark codes 22
    Records of Ground-water level 23
        Data Collection and Computation 23
        Data Presentation 24
Access to WATSTORE data 25
Definition of terms 25
Publications on techniques of water-resources investigations 38
Station records, surface records 45
    Discharge at Partial record stations 286
        Crest-stage partial-record stations 286
    Miscellaneous temperature measurement and field determinations 292
    Miscellaneous water-quality analyses in the Big Sandy River Basin 317
Ground-water records 319
    Ground-water levels listed by county 320
Discontinued gaging-station records 366
Discontinued water-quality records 371
Index 377

ILLUSTRATIONS

Page
Figure 1. Runoff during 1986 water year compared with mean runoff for period 1940-82 for three representative gaging stations.. 7
2. Hydrograph of a well in downtown Louisville (381447085454001) showing long term rise of water level, then resent decline due to pumping.................................. 8
3. Hydrograph of a well in south west Jefferson County (38124085470601), showing long term rise of water level.. 9
4. Diagram showing system for numbering wells and miscellaneous sites (latitude and longitude)............ 12
5. Map showing location of gaging stations in Kentucky.......... 40
6. Map showing location of water-quality stations in Kentucky.. 42
7. Map showing location of observation wells in Hardin and Jefferson County................................ 319

TABLES

Table 1. Mean annual, annual maximum, and annual minimum discharges and recurrence intervals for selected stations.. 3

GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[Letters after station name designate type of data: (d) discharge, (c) chemical, (b) biological (t) water temperature, (s) sediment]

Page

OHIO RIVER BASIN
Ohio River:
BIG SANDY RIVER BASIN
Levisa Fork (head of Big Sandy River):

Levisa Fork below Fishtrap Dam, near Millard (d) 45
Russell Fork at Haysi, VA (d) 46
Russell Fork at Elkhorn City (d) 47
Levisa Fork at Pikeville (d) 48
Johns Creek near Meta (d) 49
Johns Creek near Van Lear (d) 50
Levisa Fork at Paintsville (d) 51
Big Sandy River at Louisa (c,b,s) 52

LITTLE SANDY RIVER BASIN

Little Sandy River below Grayson Dam, near Leon (d) 54
Little Sandy River at Grayson (d) 55
East Fork Little Sandy River near Fallsburg (d) 56
Ohio River at Greenup Dam (d,c,b,s) 57

TYGARTS CREEK BASIN

Tygarts Creek at Olive Hill (d) 60
Tygarts Creek near Greenup (d) 61

CABIN CREEK BASIN

Cabin Creek near Tollesboro (d) 62

LICKING RIVER BASIN

Licking River near Salyersville (d) 63
Licking River at Farmers (d,t) 64
North Fork Triplett Creek near Morehead (d) 67
North Fork Licking River near Lewisburg (d) 68
Licking River at McKinneysburg (d) 69
Stoner Creek (head of South Fork Licking River) at Paris (d) 70
South Fork Licking River at Cynthiana (d) 71

GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

Page

OHIO RIVER BASIN--Continued
Ohio River--Continued
LICKING RIVER BASIN--Continued

Licking River at Catawba (d)........ 72
Licking River at Butler (c,b,s)........ 73
Ohio River at Markland Dam (d,b,c,t,s)........ 75

KENTUCKY RIVER BASIN
North Fork Kentucky River (head of Kentucky River):

Carr Fork near Sassafras (d)........ 79
North Fork Kentucky River at Hazard (d)........ 80
North Fork Kentucky River at Jackson (d)........ 81
Middle Fork Kentucky River near Hyden (d)........ 82
Cutshin Creek at Wooton (d)........ 83
Middle Fork Kentucky River at Tallega (d)........ 84

Kentucky River:

Red Bird River (head of South Fork Kentucky River) near Big Creek (d)........ 85
Goose Creek at Manchester (d)........ 86
South Fork Kentucky River at Booneville (d)........ 87
Kentucky River at lock 14, at Heidelberg (d)........ 88
Red River near Hazel Green (d)........ 89
Red River at Clay City (d)........ 90
Kentucky River at lock 10, near Winchester (d)........ 91
Dix River near Danville (d)........ 92
Kentucky River at lock 6, near Salvisa (d)........ 93
Kentucky River at lock 4, at Frankfort (d)........ 94

Elkhorn Creek:

South Elkhorn Creek at Fort Spring (d)........ 95
South Elkhorn Creek near Midway (d)........ 96
Kentucky River at lock 2, at Lockport (d,c,b,t,s)........ 97

HARRODS CREEK BASIN

Harrods Creek near La Grange (d)........101

BEARGRASS CREEK BASIN

Middle Fork Beargrass Creek at Louisville (d,c,b)........102
Ohio River at Louisville (d)........105

SALT RIVER BASIN

Brashears Creek at Taylorsville (d)........106

GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

Page

OHIO RIVER BASIN--Continued
Ohio River--Continued
  SALT RIVER BASIN--Continued
    Floyds Fork:

    Floyds Fork near Crestwood (d).................................... 107
    Floyds Fork at Fisherville (d).................................... 108
  Salt River at Shepherdsville (d,c,b,s)............................... 109
    Rolling Fork near Lebanon (d)...................................... 112
      Beech Fork at Maud (d)... 113
    Rolling Fork near Boston (d)....................................... 114
    Rolling Fork near Lebanon Junction (c,b,s)......................... 115
    Pond Creek near Louisville (d)..................................... 117
Ohio River at Cannelton Dam (d,c,b,t,s)................................ 118

  GREEN RIVER BASIN

  Green River near Campbellsville (d,t)................................ 122
    Russell Creek near Columbia (d).................................... 124
  Green River at Munfordville (d,t,s).................................. 125
    Nolin River at White Mills (d)..................................... 130
      Bacon Creek near Priceville (d).................................. 131
    Nolin River at Kyrock (d).. 132
  Green River at lock 6, at Brownsville (d)............................ 133
    Beaverdam Creek at Rhoda (d)....................................... 134
    Barren River near Finney (d)....................................... 135
      West Fork Drakes Creek (head of Drakes Creek) near Franklin (d)... 136
    Barren River at Bowling Green (d).................................. 137
  Lost River Blue Hole near Bowling Green (d).......................... 138
  Green River at lock 4, at Woodbury (d)............................... 140
    Rough River at Falls of Rough (d).................................. 141
      Caney Creek near Horse Branch (d)................................ 142
  Green River at lock 2, at Calhoun (d)................................ 143
    Pond River near Apex (d)... 144
  Green River near Beech Grove (c,b,s)................................. 145
Ohio River at Evansville, IN (d)....................................... 147

  HIGHLAND CREEK BASIN
    Highland Creek:

      Beaverdam Creek near Corydon (d)................................. 148

  TRADEWATER RIVER BASIN

  Tradewater River at Olney (d).. 149

X

GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

Page

OHIO RIVER BASIN--Continued
Ohio River--Continued
CUMBERLAND RIVER BASIN

Poor Fork (head of Cumberland River) at Cumberland (d)................ 150
Martins Fork above Smith (d,s).................................... 151
Martins Fork Lake at Martins Fork Dam near Smith (c,t)............ 155
Martins Fork near Smith (d,c,t)................................... 178
Clover Fork at Harlan (d,s)....................................... 185
Cumberland River near Harlan (d).................................. 189
Bennett's Fork at Middlesboro (d,s)............................... 190
Yellow Creek near Middlesboro (d,s)............................... 194
Cumberland River near Pineville (d,s)............................. 198
Cumberland River at Barbourville (d,s)............................ 202
Clear Fork at Saxton (d).. 206
Cumberland River at Williamsburg (d,s)............................ 207
Cumberland River at Cumberland Falls (d,s,c,t).................... 211
Laurel River at Municipal Dam near Corbin (d)..................... 222
Lynn Camp Creek at Corbin (d)..................................... 223
Rockcastle River at Billows (d)................................... 224
Buck Creek near Shopville (d)..................................... 225
New River at New River, TN (d,c,s,t).............................. 226
Clear Fork near Robbins, TN (d,c,s,t)............................. 237
South Fork Cumberland River at Leatherwood Ford, TN (d,c,s,t)..... 248
South Fork Cumberland River near Stearns (d,c,s,t)................ 259
Cumberland River near Rowena (d).................................. 270

Red River:

Whippoorwill Creek near Claymour (d).............................. 271
Little River near Cadiz (d)....................................... 272
Barkley-Kentucky Canal near Grand Rivers (d)...................... 273
Cumberland River near Grand Rivers (d,c,s)........................ 274

TENNESSEE RIVER BASIN

Tennessee River at Highway 60, near Paducah (c,s)................. 277
Clarks River at Almo (d).. 279

MASSAC CREEK BASIN

Massac Creek near Paducah (d)..................................... 280
Ohio River at Metropolis, IL (d).................................. 281
Ohio River at lock and dam 53, near Grand Chain, IL (c,t,s)....... 282

LOWER MISSISSIPPI RIVER BASIN

Bayou De Chien near Clinton (d)................................... 285

GROUND-WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED

Page

HARDIN COUNTY

Well 375948085574801 Local number 2.............................. 320
Well 375958085575401 Local number 1.............................. 320

JEFFERSON COUNTY

Well 380122085545001 Local number 80-1........................... 321
Well 380252085530601 Local number 79-3........................... 321
Well 380308085533501 Local number 79-4........................... 321
Well 380341085534501 Local number 83-1........................... 322
Well 380423085541501 Local number 2.............................. 322
Well 380434085525101 Local number E-1-d.......................... 322
Well 380517085535201 Local number 77-1........................... 323
Well 380532085515301 Local number 51-5-2, (76-1).................... 323
Well 380606085531301 Local number 53-6-1, (RR-46)................... 324
Well 380616085532801 Local number 53-6-4, (TW-3).................... 325
Well 380637085521301 Local number D-1-d.......................... 325
Well 380633085524701 Local number D-2-d.......................... 325
Well 380709085531101 Local number C-5-d.......................... 326
Well 380715085512001 Local number C-2-d.......................... 326
Well 380716085521801 Local number 52-7-2, (RR-47)................... 326
Well 380718085515802 Local number C-3-s.......................... 327
Well 380718085524202 Local number C-4-m.......................... 327
Well 380755085510701 Local number 78-4........................... 327
Well 380816085520701 Local number 52-8-1,......................... 328
Well 380843085530701 Local number B-3-d.......................... 328
Well 380843085522801 Local number B-2-d.......................... 328
Well 380846085520101 Local number B-1-d.......................... 329
Well 380850085534701 Local number 78-2........................... 329
Well 380852085515901 Local number 51-8-1, ... 329
Well 380940085514001 Local number 81-1........................... 330
Well 380955085531801 Local number 83-2........................... 330
Well 381032085525601 Local number 78-3........................... 330
Well 381034085502601 Local number 50-10-2, (RR-30).................. 331
Well 381050085511001 Local number 51-10-1, (RR-29).................. 332
Well 381102085512102 Local number 51-11-2, ... 332
Well 381108085511301 Local number 51-11-4, (RR-31).................. 332
Well 381123085491401 Local number 49-11-1, (RR-32).................. 333
Well 381124085514601 Local number A-2-d.......................... 333
Well 381130085515001 Local number 51-11-1, ... 333
Well 381139085502301 Local number 81-2........................... 334
Well 381142085475702 Local number 47-11-4, (RR-42).................. 334
Well 381143085465801 Local number 46-11-2, (RR-25).................. 334
Well 381155085483401 Local number 48-11-1, ... 335
Well 381157085510201 Local number 51-11-6, (RR-39).................. 335
Well 381204085455301 Local number CP-16.......................... 335
Well 381207085484601 Local number 48-12-15, (RR-41)................. 336
Well 381209085472101 Local number 47-12-3, (C-7).................... 336
Well 381212085473801 Local number 47-12-2, (C-6).................... 336
Well 381213085521701 Local number 52-12-2, (RR-22).................. 337
Well 381221085475001 Local number 47-12-1, (C-5).................... 337
Well 381222085505201 Local number 50-12-16, (RR-27)................. 338
Well 381224085474001 Local number 47-12-19, (Early Times #1)......... 339
Well 381229085510201 Local number Triangle Refinery #1............... 339
Well 381246085470601 Local number 47-12-4, (Seagrams TW #2).......... 340
Well 381250085484901 Local number 48-12-1, (C-2).................... 341
Well 381251085483501 Local number 48-12-2, (C-3).................... 341

GROUND-WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED

Page

JEFFERSON COUNTY--Continued

Well 381251085500501 Local number 50-12-18, (RR-35).................. 341
Well 381256085471501 Local number 47-12-14, (TW-2)................... 342
Well 381257085471801 Local number 47-12-15, (TW-4)................... 342
Well 381259085471502 Local number 47-12-16, (TW-1) 342
Well 381259085511002 Local number 51-13-1, (RR-21)................... 343
Well 381305085501302 Local number Reynolds Metals #1................. 343
Well 381309085505302 Local number 50-13-56, (RR-24).................. 343
Well 381313085495501 Local number 49-13-25, (TW-2)................... 344
Well 381315085501401 Local number 50-13-65, (TW-11).................. 344
Well 381315085502602 Local number 50-13-79, (NC-TW-D)................ 345
Well 381316085502101 Local number 50-13-77, (TW-12).................. 346
Well 381320085464101 Local number CP-15............................. 346
Well 381324085460401 Local number 46-13-25, (Amer. Std.)............. 346
Well 381331085491601 Local number 49-13-40, (RR-26).................. 347
Well 381332085494001 Local number 49-13-5, (TW-10).................. 347
Well 381338085481601 Local number CP-8.............................. 347
Well 381346085453801 Local number 45-13-2, (St. Patricks well)....... 348
Well 381346085454201 Local number CP-1.............................. 348
Well 381355085465901 Local number 46-13-34, (Lou. Cooperage).......... 348
Well 381400085445001 Local number CP-6.............................. 349
Well 381406085463001 Local number 78-1.............................. 349
Well 381417085500301 Local number 50-14-4, (RR-23).................. 349
Well 381424085454602 Local number CP-12A............................ 350
Well 381428085485701 Local number 78-6.............................. 350
Well 381430085452602 Local number 45-14-69, (Conna #3) 350
Well 381430085472501 Local number CP-17............................. 351
Well 381441085465301 Local number 46-14-13, (Bernheim #3)............ 351
Well 381441085452701 Local number 45-14-71, (A-2)................... 352
Well 381447085454001 Local number 45-14-66, (CJ&T #5)................ 353
Well 381453085474501 Local number 47-14-10, (Kroger)................. 354
Well 381500085454701 Local number 78-5.............................. 354
Well 381501085464601 Local number CP-10............................. 354
Well 381503085453301 Local number 45-15-36, (Ky. Towers)............. 355
Well 381503085452601 Local number Stewart's #5...................... 355
Well 381504085443201 Local number CP-7A............................. 355
Well 381505085475701 Local number CP-5.............................. 356
Well 381508085455701 Local number CP-4.............................. 356
Well 381514085453502 Local number CP-11A............................ 357
Well 381536085492801 Local number CP-2.............................. 358
Well 381538085434401 Local number 78-7.............................. 358
Well 381539085465201 Local number CP-9.............................. 358
Well 381540085443701 Local number 44-15-6, (M&M #1)................. 359
Well 381543085480101 Local number CP-14............................. 359
Well 381553085431602 Local number M-2............................... 359
Well 381604085430501 Local number 43-16-8, (WC-1)................... 360
Well 381607085483601 Local number CP-3.............................. 360
Well 381613085421901 Local number 42-16-18, (WC-14).................. 360
Well 381628085473101 Local number CP-13............................. 361
Well 381638085415801 Local number 41-16-3, (WC-4)................... 362
Well 381648085421201 Local number 42-16-15, (WC-5).................. 363
Well 381653085413302 Local number WC-9A............................. 363
Well 381701085414002 Local number WC-8A............................. 363
Well 381722085405801 Local number 40-17-3, (WC-11).................. 364
Well 381742085402001 Local number 40-17-5, (WC-13).................. 364
Well 381827085392401 Local number 39-18-1, (WC-26).................. 364
Well 381904085384801 Local number 38-19-2, (WC-27).................. 365

WATER RESOURCES DATA - KENTUCKY, 1986

INTRODUCTION

Water resources data for the 1986 water year for Kentucky consist of records of stage, discharge, and water quality of streams and lakes; and water-levels of wells. This report includes daily discharge records for 103 stream-gaging stations and data for 77 crest-stage sites. It also includes water-quality data for 26 stations sampled at regular intervals. Also published are 14 daily temperature and 12 specific conductance records, and 81 miscellaneous temperature and specific conductance determinations for the gaging stations. Suspended-sediment data for 26 stations (of which 11 are daily) are also published. Ground-water levels are published for 9 recording and 102 partial sites. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Kentucky.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1944 to 1973 in a series of water-supply papers entitled, "Ground-Water Levels in the United States."

Beginning with the 1961 water year and continuing through water year 1986, streamflow data have been released by the U.S. Geological Survey in annual reports on a State-boundary basis. Water-quality records beginning with the 1964 water year, and ground-water data since the 1971 water year have been similarly released either in separate reports or in conjunction with streamflow records. These reports provided rapid release of preliminary water data shortly after the end of the water year. The final data were then released in the water-supply paper series mentioned above. Beginning with the 1975 water year, water data will be released on a State-boundary basis in final form and will not be republished in the water-supply paper series. The 1975 and subsequent water year reports will be in a series which will carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report KY 86-1." These reports are for sale to the public for a nominal fee from the Books and Open-File Reports Section at the Federal Center in Denver, Colorado.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (502) 582-5241.

COOPERATION

The U.S. Geological Survey and organizations of the Commonwealth of Kentucky have had cooperative agreements for the systematic collection of streamflow records since 1938, for ground-water records since 1943, and for water-quality records since 1949. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

University of Kentucky, Otis A. Singletary, President, through State Geological Survey, D. C. Haney, Director and State Geologist.

Kentucky Natural Resources and Environmental Protection Cabinet, Mary Helen Miller, Secretary.

City of Louisville, Harvey Sloane, Mayor.

Assistance in the form of funds or services were given by the Corps of Engineers, U.S. Army, in collecting records for 92 gaging stations.

The Kentucky Utilities Company, the Public Service Company of Indiana, and the Ohio River Valley Water Sanitation Commission aided in collecting records.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Comparison of monthly mean and yearly mean discharge for the 1986 water year and the base period 1940-1982 are shown in figure 1 for three representative gaging stations. Mean annual streamflow in 1986 was below the long-term average across the State as shown in table 1. At gaging stations on unregulated streams in Kentucky, 1986 flow ranged from 45 percent of the long-term average for Beaverdam Creek at Rhoda (03311600) in the Green River basin to a high of 94 percent of the long-term average at Beaverdam Creek near Corydon (03322360) in the Highland Rim basin.

Although mean flow in Kentucky during the 1986 water year was below average, annual extreme flows were within historical extremes throughout the State and there were no significant floods. The annual maximum discharge at most stations was less than the 2-year recurrence interval. Base flow varied throughout the State with most stations having flows greater than the 10-year recurrence interval minimum base flow. However, deficient late winter precipitation resulted in extended low flow throughout the summer which was as low as normally expected during the fall. This premature low-flow season resulted in some water supply problems, particularly during July and August when agriculture withdrawals were high. The instantaneous maximum and minimum flows at selected long-term non-regulated stations and the recurrence interval for each are given in table 1.

Table 1.-- Mean annual, annual maximum, and annual minimum discharges and recurrence intervals for selected stations

Station No.	Length of record (years)	Mean annual		Annual maximum		Annual minimum	
		Discharge (ft3/s)	Percent of average	Discharge (ft3/s)	Recurrence interval (years)	Discharge (ft3/s)	1-Day recurrence interval (years)
BIG SANDY RIVER BASIN							
03210000	45	49.0	71	2,220	<2	0.48	<2
LITTLE SANDY RIVER BASIN							
03216540	14	6.82	47	314	--	0	10
TYGARTS CREEK BASIN							
03216800	29	54.8	65	2,720	<2	0	10
CABIN CREEK BASIN							
03237900	14	23.9	80	4,670	--	0	2
LICKING RIVER BASIN							
03248500	48	122	71	2,600	<2	1.5	<2
03250100	19	98.4	77	2,650	<2	0	10
03251000	40	94.8	64	2,590	<2	.05	<2
03252000	33	170	60	4,500	<2	1.2	2
03252500	48	359	48	8,180	<2	2.1	<10
KENTUCKY RIVER BASIN							
03280600	29	199	68	7,360	<2	0	>20
03280700	29	60.5	64	3,130	<2	.18	<5
03281040	14	177	65	9,490	--	1.7	<2
03281100	22	172	66	5,670	<2	.67	<10
03281500	53	696	66	15,500	<2	6.1	<10
03282500	32	63.9	73	2,070	<2	.22	<10
03283500	49	305	64	5,610	<2	10	<10
03285000	44	233	51	7,950	<2	0	10
03289000	36	20.4	63	911	<2	1.8	<2
HARRODS CREEK BASIN							
03292460	18	19.6	51	2,420	--	0	10
BEARGRASS CREEK BASIN							
03293000	42	16.0	62	711	<2	.96	<10
SALT RIVER BASIN							
03297845	7	41.9	79	3,330	--	0	--
03298000	42	112	64	6,770	<2	0	2
03299000	48	188	55	9,520	<2	.25	<10
03300400	14	372	60	14,000	--	.17	>20
03301500	48	1,108	62	18,600	<2	6.7	<10
03302000	42	62.4	70	1,600	<2	8.3	<2
GREEN RIVER BASIN							
03307000	47	173	59	6,190	<2	10	<2
03310300	27	328	67	2,940	<2	49	2
03310400	27	28.2	48	299	<2	6.2	<10
03311600	14	8.47	45	549	--	.27	<20
03318800	30	116	62	4,680	<2	0	2
03320500	46	224	82	5,460	<2	21	<2

Table 1.-- (Cont.)

			HIGHLAND CREEK BASIN				
03322360	13	14.7	94	2,440	--	0	2
			CUMBERLAND RIVER BASIN				
03400500	46	106	75	2,380	<2	6.0	<10
03403910	18	309	55	9,780	<2	14	<10
03404900	13	48.0	56	1,710	<2	1.0	<10
03406500	50	508	55	14,400	<2	7.5	<10
03407500	34	141	51	4,070	<2	.06	<10
03410500	44	1,131	64	32,700	<2	41	2
03435140	13	20.4	58	1,910	--	0	2
03438000	46	253	72	3,780	<2	24	<2
			MASSAC CREEK BASIN				
03611260	15	13.7	69	1,440	--	.18	2
			BAYOU DE CHIEN BASIN				
07024000	41	71.0	67	1,570	<2	11	<2

Quality of Water

The chemical quality of surface water in Kentucky during the 1986 water year, as reflected by samples collected at 12 water-quality stations, showed little change from previous years. Analyses of water samples collected indicate that water in the major streams of Kentucky is generally suitable for public water supply needs and most industrial uses, when properly treated. There was no evidence of significant concentrations of trace metals or pesticides in the samples collected. Streams draining coal-mining areas show some effects from acid mine drainage such as elevated sulfate, iron, and manganese.

Streams throughout Kentucky generally fall short of meeting drinking water-quality standards only for biological and a few chemical constituents. The standards commonly exceeded are for fecal coliforms, fecal streptococci, turbidity, hardness, suspended sediments, sodium, iron, and manganese. Five of the 12 water-quality sampling stations in Kentucky where dissolved manganese concentration is routinely determined, exhibited manganese concentrations above the U.S. Environmental Protection Agency's drinking water standard at some point during the year. The highest measured dissolved manganese concentration during the year was 240 micrograms per liter in the Green River near Beech Grove, Kentucky (03321230).

The presence of fecal coliforms impacts recreational water use as well as drinking water quality. Excessive fecal coliform concentrations, above the U.S. Environmental Protection Agency's water-quality criteria standards set for recreational stream use, were observed periodically at 9 of the 12 sampling stations. The maximum observed fecal coliform concentration during the year reached 7,300 colonies per 100 millimeters in Rolling Fork near Lebanon Junction (0331630), and the maximum fecal strepococci concentration was greater than 10,000 colonies per 100 millimeters at the same site.

Flow conditions during sampling had some effects on water quality. In general, the common dissolved-constituent concentrations were highest during low-flow periods and were lowest during high flow periods following major storms. Dissolved nutrients and other constituents attributed to non-point sources were at the highest concentrations during high-flow conditions.

Dissolved oxygen concentration in the Ohio River at Markland Dam (03277200) exceeded Kentucky's standard of 5 mg/l at least once during the year. Dissolved oxygen is a primary indicator of the suitability of surface waters to support aquatic life. Ideally, the dissolved oxygen concentration in natural waters should approach saturation, however, because of oxygen demanding substances present in the water, it is usually somewhat less than the saturation value. The minimum dissolved oxygen concentration observed was 4.6 milligrams per liter (60% of saturation) in the Ohio River at Markland Dam during a low flow period in August.

Sediment

The suspended sediment transported by streams in Kentucky contains mostly silt and clay-sized particles. Measured suspended-sediment concentrations show that sand is usually less than 6 percent of the sampled concentrations. An exception is the eastern part of the State where samples were collected from steep-gradient streams. Suspended sediment concentrations were as much as 56 percent sand with an average of 11 percent sand for all samples in the region.

A comparison of long-term average annual suspended-sediment yields between physiographic regions in Kentucky has shown yields ranging from 197 to 741 tons/mi ^{2} (R. F. Flint, "Fluvial Sedimentation in Kentucky, "U.S. Geological Survey Water Resources Investigations Report 83-4152, 1983). Bedload discharge was estimated to be in the range of 5 to 10 percent of the suspended-sediment discharge for streams in the State.

Sediment yields in Kentucky are influenced by many factors but precipitation is probably the most important factor. Topography, runoff, soils, and land use are also important factors affecting sediment yields.

Precipitation and runoff rates were lower than normal during the 1986 water year, and therefore sediment yields at daily suspended-sediment stations were below average. Sediment yield in tons/mi^2 at 03404000 Cumberland River at Williamsburg for 1986 was 59 percent of the long term average based on 13 years of sediment record. Sediment yield in tons/mi^2 of contributing drainage area at 03308500 Green River at Munfordsville for 1986 was 50 percent of the long term average, based on 35 years of sediment record.

Ground-Water Levels

The majority of observation wells in Kentucky are located in the sand and gravel alluvial aquifer underlying Louisville and southwest Jefferson County. The fluctuation of ground-water levels in that area are summarized by representative hydrographs of two observation wells.

Water levels in the immediate downtown Louisville area, after a steady rise during the past 20 years, dropped dramatically during 1985 then remained relatively stable during 1986. The 1985 water level decline is attributed to an increase in pumpage of ground water for use in heating and cooling downtown buildings. The hydrograph in figure 2 of well 381447085454001 is indicative of conditions in downtown Louisville.

Water levels in the southwestern part of Louisville and Jefferson County continued to rise through the 1985 water year, but declined steadily during 1986. The hydrograph in figure 3 of well 381246085470601 is indicative of conditions in southwestern Jefferson County.

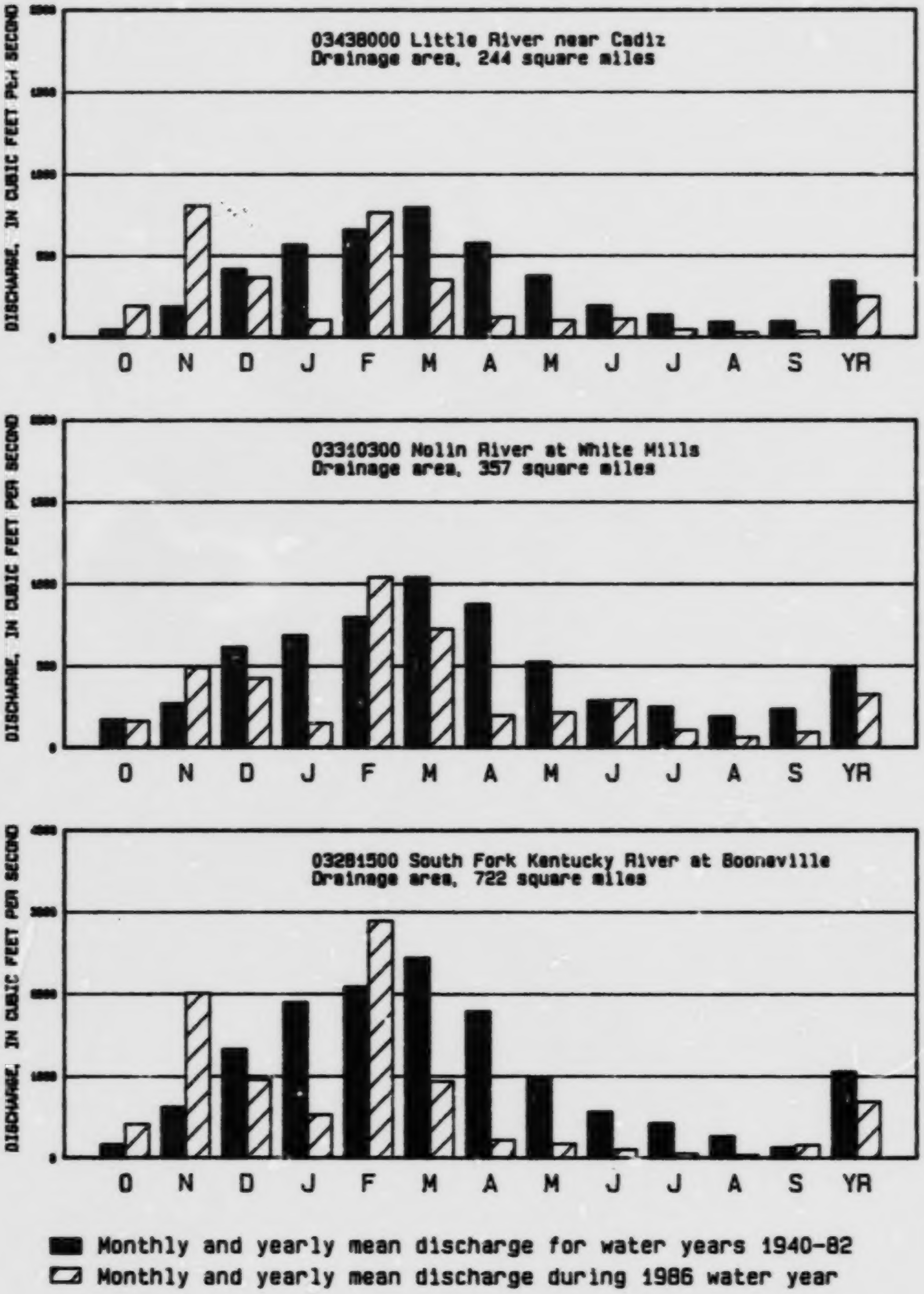

Figure 1.--Runoff during 1986 water year compared with mean runoff for period 1940-82 for three representative gaging stations.

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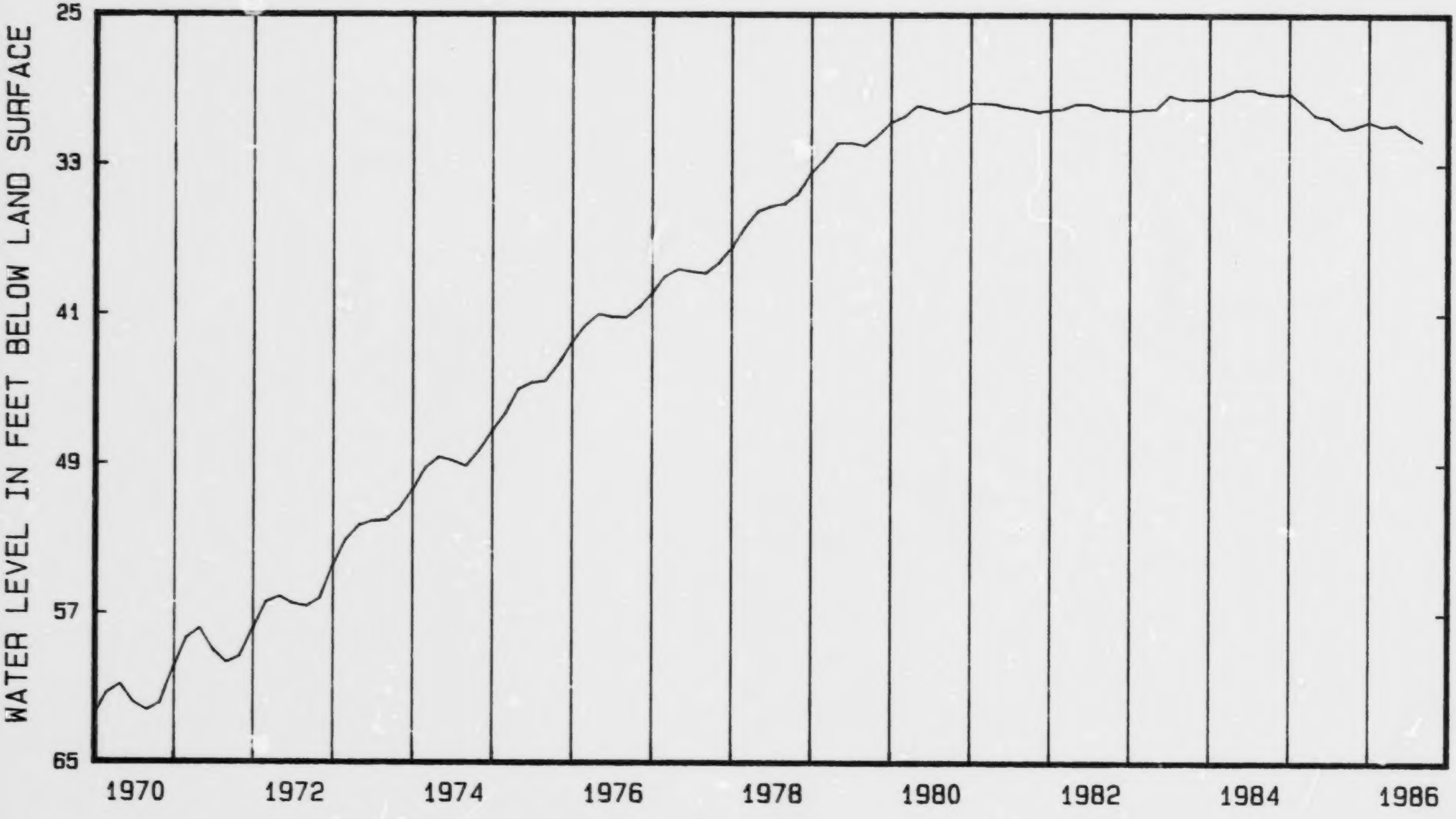

Figure 2.-- Hydrograph of a well in downtown Louisville (381447085454001) showing long term rise of water level, then recent decline due to pumping.

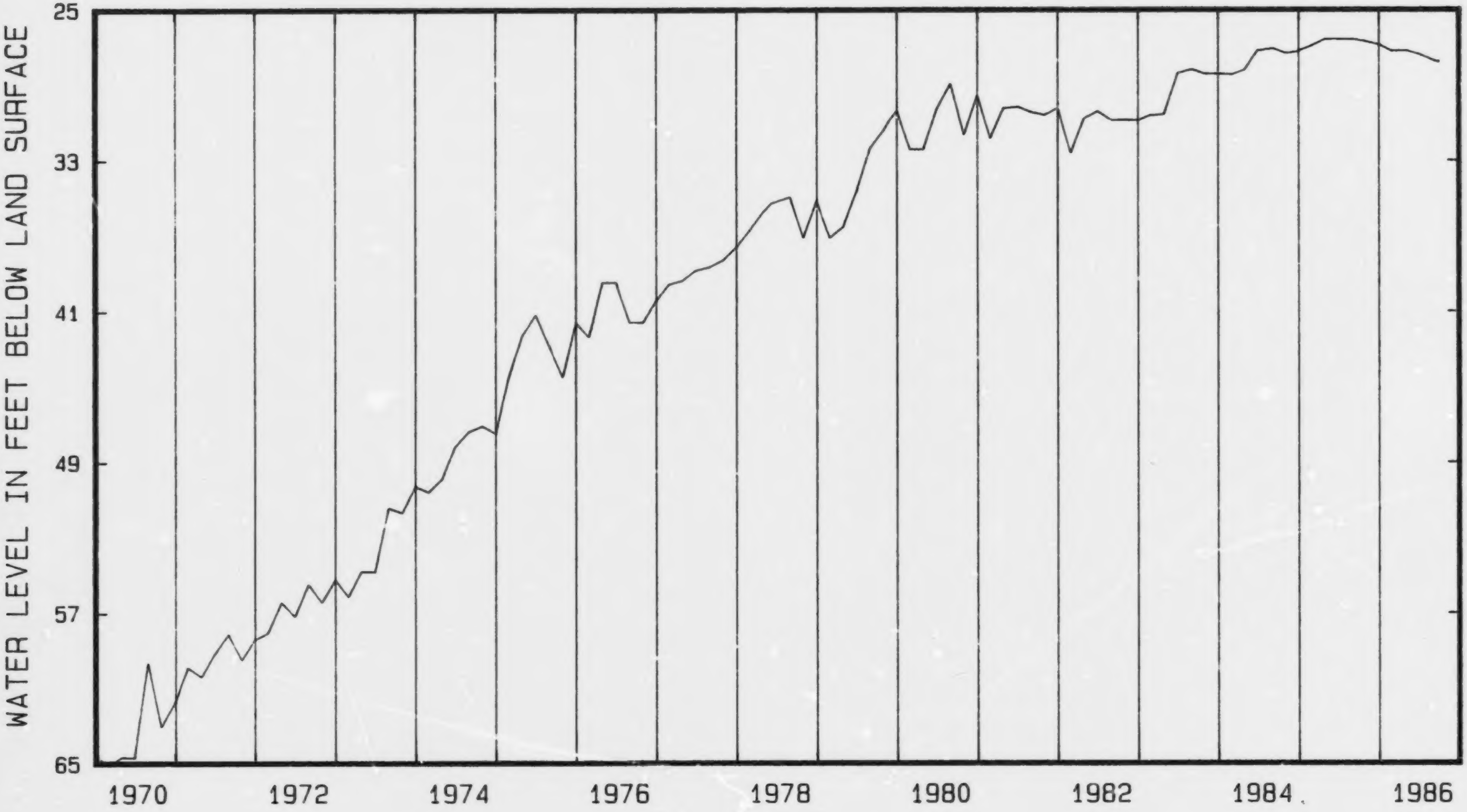

Figure 3.-- Hydrograph of a well in south west Jefferson county (381246085470601), showing long term rise of water level.

SPECIAL NETWORKS AND PROGRAMS

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

Radiochemical Program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1986 water year that began October 1, 1985, and ended September 30, 1986. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, and water-quality data for surface water data. The locations of the stations and wells where the data were collected are shown in figures 5, 6, and 7. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Kentucky for surface-water stations where only miscellaneous measurements are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 03208000, which appears just to the left of the station name, includes the two-digit Part number "03" plus the six-digit downstream-order number "032080." The Part number designates the major river basin; for example, Part "03" is the Ohio River basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure 4).

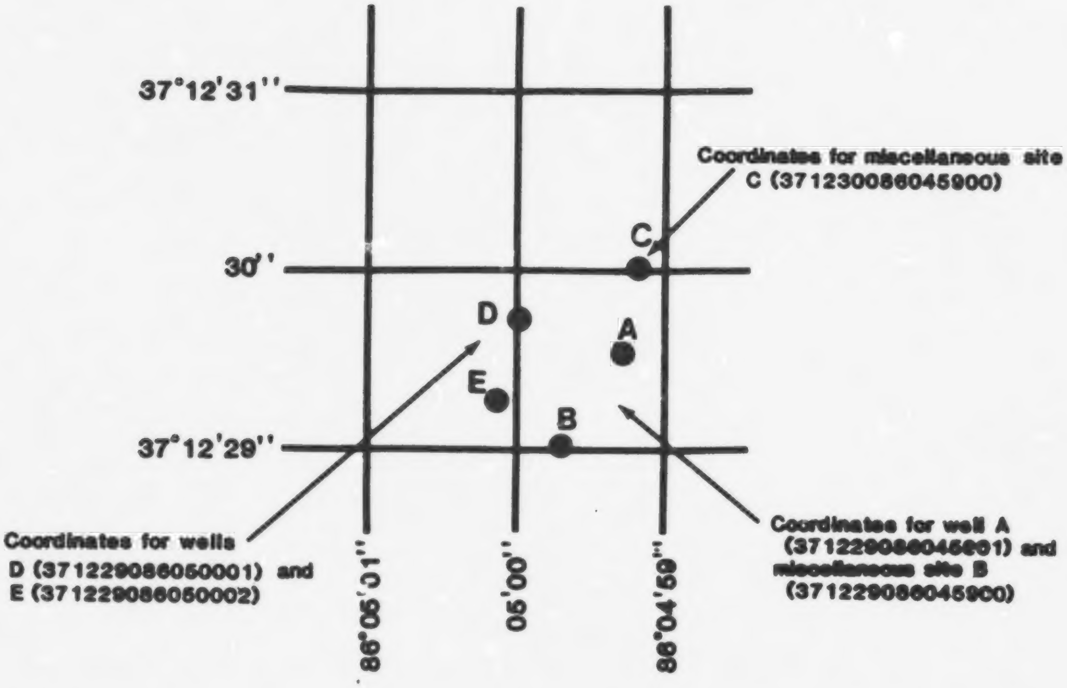
37°12'31''
Coordinates for miscellaneous site C (371230086045900)
C
30''
D
A
E
B
37°12'29''
Coordinates for wells D (371229086050001) and E (371229086050002)
86°05'01''
05'00''
86°04'59''
Coordinates for well A (371229086045901) and miscellaneous site B (371229086045900)

Figure 4.—System for numbering wells, springs, and miscellaneous sites (latitude and longitude)

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Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record.

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records".

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the offices whose addresses are given on the back of the title page of this report to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true values; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ftZ/s; to the nearest tenth between 1.0 and 10 ftZ/s; to whole numbers between 10 and 1,000 ftZ/s; and to 3 significant figures for more than 1,000 ftZ/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the Kentucky District. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the offices whose addresses are given on the back of the title page of this report.

Records of discharge collected by agencies other than the U.S. Geological Survey

The following agency has collected records of discharge in Kentucky during the 1986 water year that are not contained in publications of the U.S. Geological Survey:

U.S. Army Corps of Engineers, Memphis District: Records for Mississippi River at Hickman are contained in the Memphis Districts annual publication entitled, "Stages and Discharges of the Mississippi River and its Tributaries in the Memphis District, 1986."

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" , as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 6.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Detailed information on collecting, treating, and shipping samples may be obtained from the Kentucky District.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the Kentucky District whose address is given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the Kentucky District office.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

Laboratory Measurements

Sediment samples, samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown

K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less that 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

Records of Ground-Water Levels

Only water-level data from a national network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in Kentucky are shown in figure 7.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number.

Water-level records are obtained from direct measurements with a steel tape or from the graph or punched tape of a water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed. The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from the offices whose addresses are given on the back of the title page.

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary hase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35CC. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35CC plus or minus 1.0CC on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5CC plus or minus 0.2CC on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35CC plus or minus 1.0CC on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500CC for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/mZ), and periphyton and benthic organisms in grams per square mile (g/mU).

Dry mass refers to the mass of residue present after drying in an oven at 105CC for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram perliter of platinum in the form of the chloro-platinate ion. Color is expressed in units of the plantinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic foot per second (ftZ/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic feet per second per square mile [(ftZ/s)/miU] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 um membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO).

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (mU), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentaiton methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation
Silt..........	.004 - .062	Sedimentation
Sand..........	.062 - 2.0	Sedimentation or sieve
Gravel........	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(mU.time)] for periphyton and macrophytes and [mg C/(mZ.time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mgO /(mU.time)] for periphyton and macrophytes and [mgO /(mZ.time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on theincubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Runoff in inches (IN., in.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ftZ/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

7-day 10-year low flow (7 Q) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25CC. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom....................	Animal
Phylum.....................	Arthropoda
Class......................	Insecta
Order......................	Ephemeroptera
Family.....................	Ephemeridae
Genus......................	Hexagenia
Species....................	Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1986, is called the "1986 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviaton for "Water-Supply Paper" in reference to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open- File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. *Water temperature--influential factors, field measurement, and data presentation,* by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents,* by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations,* by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations,* by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 Pages.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel and dispersion in streams by dye tracing,* by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.

3-A10. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A13. *Computation of continuous records of streamflow,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.

3-A14. *Use of flumes in measuring discharge,* by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.

3-A15. *Computation of water-surface profiles in open channels,* by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.

3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction,* by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers,* by J. E. Reed: USGS-TWRI Book 3, Chapter B3. 1980. 106 pages.

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3-C1. *Fluvial sediment concepts* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations* by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply.* by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics* by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water* by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples* edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments* by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sedments,* by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

5-C1. *Laboratory theory and methods for sediment analysis* by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water* by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels* by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages

8-A2. *Installation and service manual for U.S. Geological Survey manometers* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

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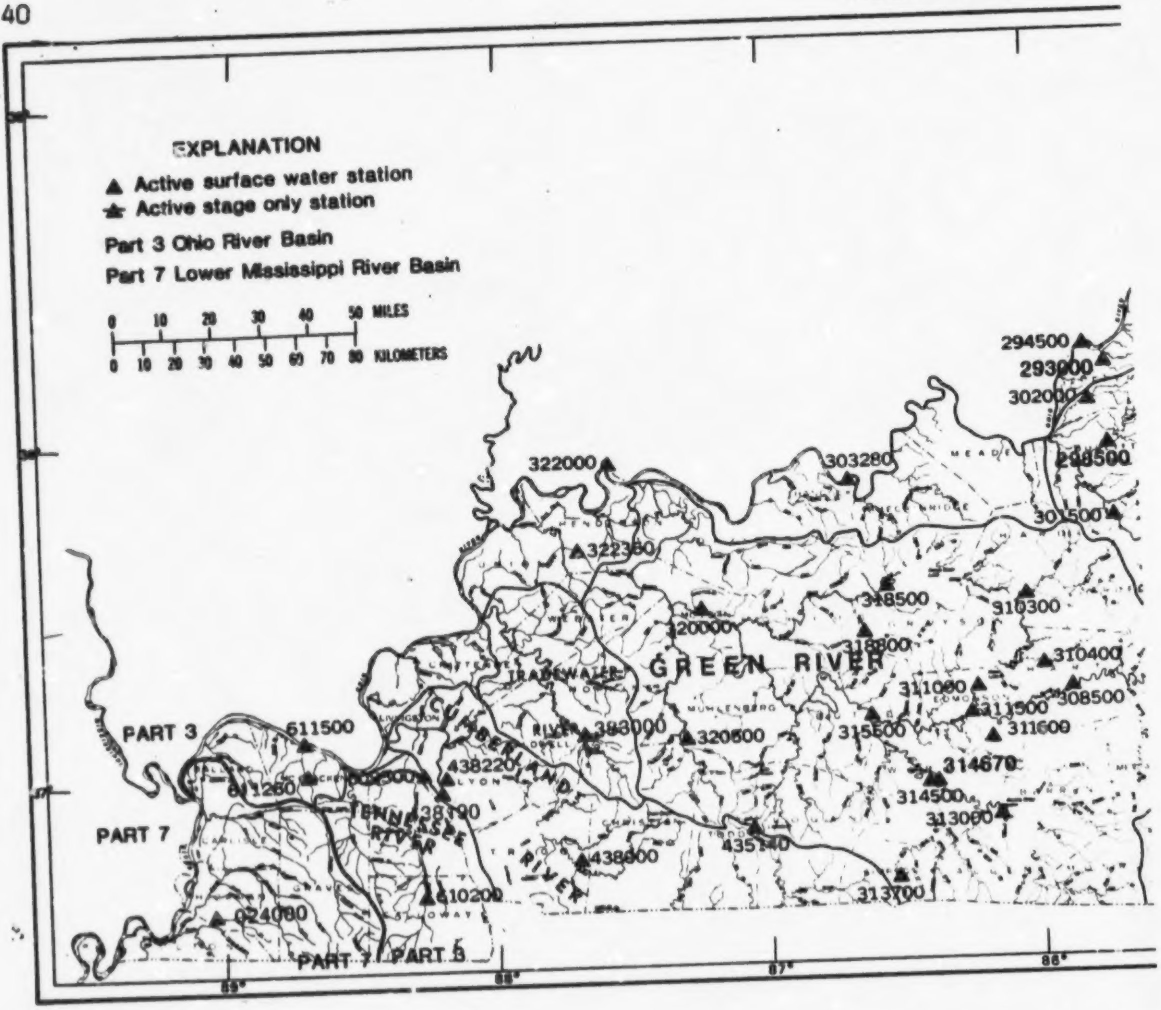
EXPLANATION
▲ Active surface water station
▲ Active stage only station
Part 3 Ohio River Basin
Part 7 Lower Mississippi River Basin
0 10 20 30 40 50 MILES
0 10 20 30 40 50 60 70 80 KILOMETERS
294500
293000
302000
303280
298500
322000
322380
301500
318500
310300
320000
318800
310400
GREEN RIVER
311000
308500
311500
TRADEWATER
PART 3
611500
RIVER
383000
320500
315500
311600
CUMBERLAND
314670
611260
438220
314500
TENNESSEE RIVER
438190
313000
PART 7
435340
438800
RIVER
313700
610200
024000
PART 7
PART 3
89°
88°
87°
86°

Figure 5.— Location of gaging

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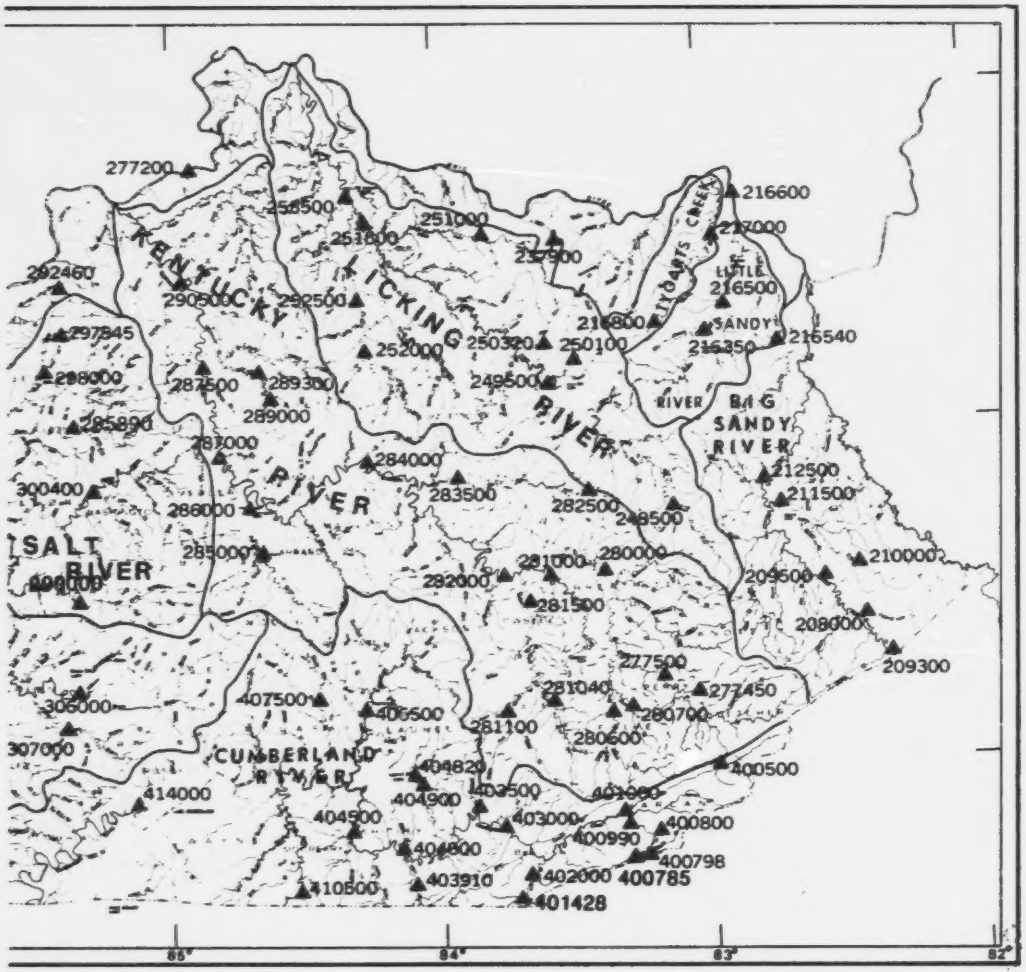
277200
258500
251800
251000
237900
216600
217000
292460
290500
KENTUCKY
292500
LICKING
LITTLE
216500
297845
216800
SANDY
216540
252000
250320
250100
216350
298000
287500
289300
249500
RIVER
BIG
SANDY
RIVER
289000
285890
287000
RIVER
284000
212500
300400
283500
211500
286000
RIVER
282500
248500
SALT
RIVER
285000
281000
280000
210000
400000
292000
209500
281500
208000
209300
277500
306000
407500
406500
281040
277450
307000
281100
280700
280600
CUMBERLAND
RIVER
404820
400500
414000
404900
403500
401000
404500
403000
400990
400800
404800
400798
410500
403910
402000
400785
401428
85°
84°
83°
82°

stations in Kentucky.

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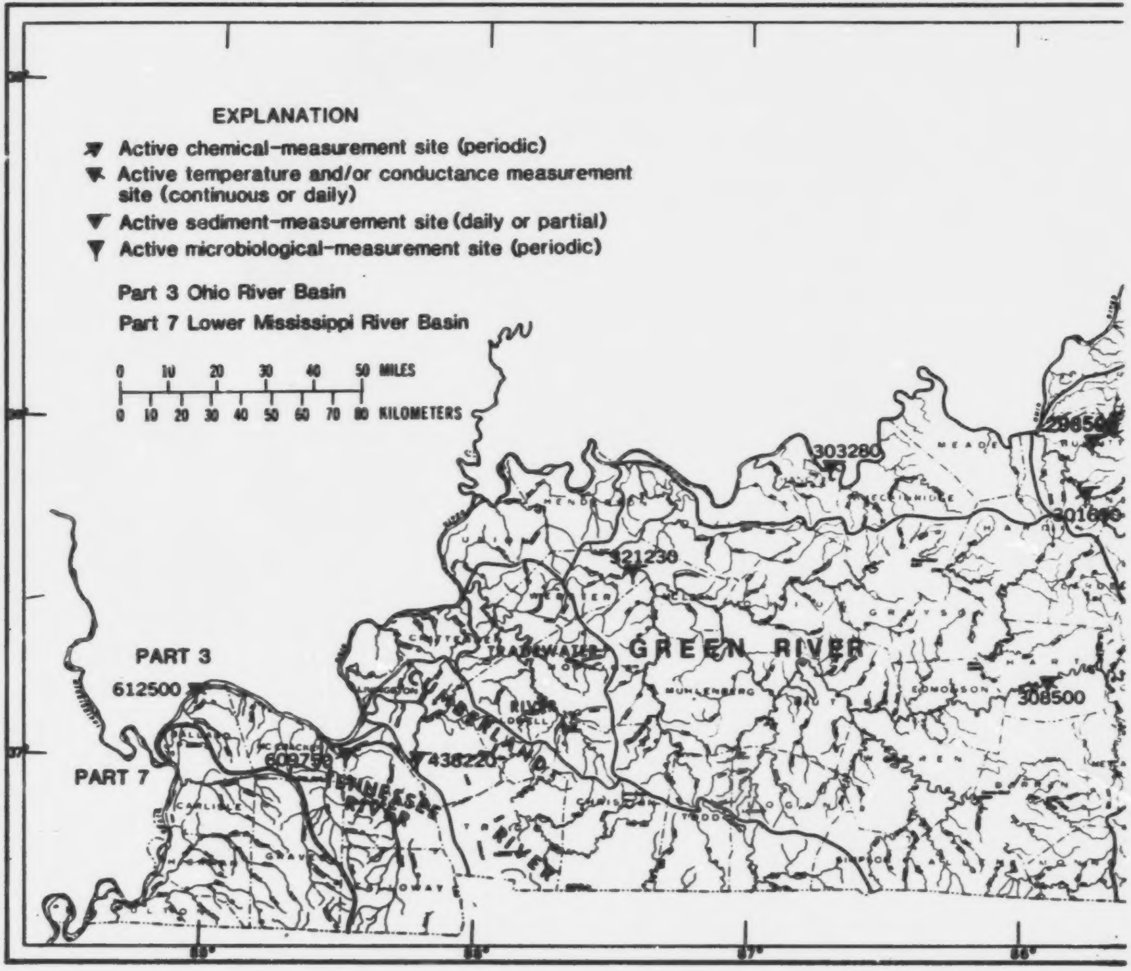
EXPLANATION
▼ Active chemical-measurement site (periodic)
▼ Active temperature and/or conductance measurement site (continuous or daily)
▼ Active sediment-measurement site (daily or partial)
▼ Active microbiological-measurement site (periodic)
Part 3 Ohio River Basin
Part 7 Lower Mississippi River Basin
0 10 20 30 40 50 MILES
0 10 20 30 40 50 60 70 80 KILOMETERS
303280
2985
3016
321230
GREEN RIVER
308500
PART 3
612500
609750
438220
PART 7
TENNESSEE RIVER
CUMBERLAND RIVER
TRADEWATER RIVER
MEADE
BRECKINRIDGE
HENDERSON
GRAYSON
MUHLENBERG
EDMONSON
CHRISTIAN
TODD
LOGAN
WARREN
BARREN
CARLISLE
GRAVES
CALLOWAY
TRIGG
LIVINGSTON
CRITTENDEN
SIMPSON
HART
37°
89°
88°
87°
86°

Figure 6.— Location of surface water

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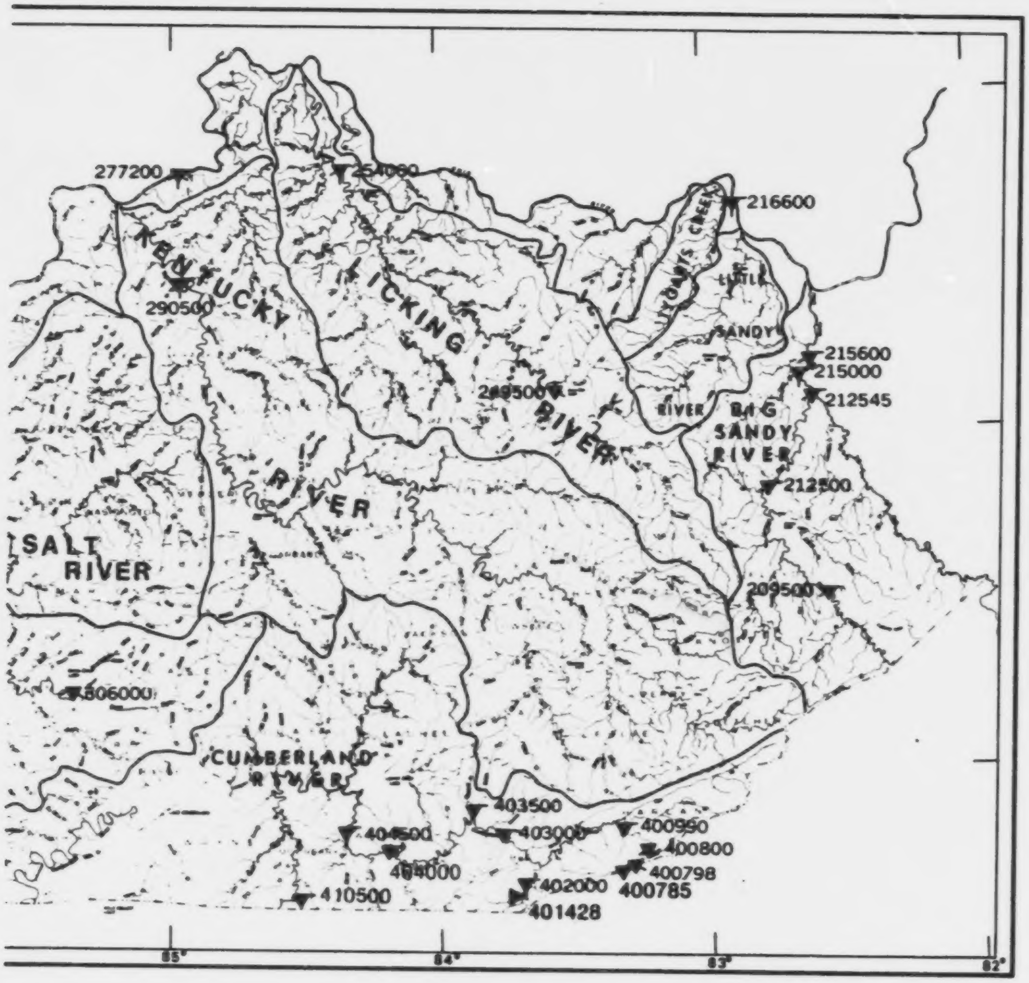

277200
254000
216600
KENTUCKY RIVER
LICKING RIVER
290500
TYGARTS CREEK
LITTLE SANDY RIVER
249500
215600
215000
212545
BIG SANDY RIVER
212500
SALT RIVER
209500
306000
CUMBERLAND RIVER
403500
404500
403000
400990
400800
404000
400798
402000
400785
410500
401428
85°
84°
83°
82°

quality stations in Kentucky.

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03208000 LEVISA FORK BELOW FISHTRAP DAM, NEAR MILLARD, KY

LOCATION.--Lat 37°25'33", long 82°24'45", Pike County, Hydrologic Unit 05070202, on right bank, 0.4 mi downstream from Fishtrap Dam, 1.1 mi upstream from Lower Pompey Branch, 1.9 mi northeast of Millard, 2.4 mi upstream from confluence with Russell Fork, and at mile 129.6.

DRAINAGE AREA.--392 mi^2.

PERIOD OF RECORD.--February 1938 to current year. Prior to April 1968, published as "Levisa Fork at Fishtrap."

REVISED RECORDS.--WSP 953: Drainage area. WSP 1335: 1938(M), 1939, 1940(M), 1942-43, 1944-45(M), 1946, 1948.

GAGE.--Water-stage recorder. Datum of gage is 600.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Apr. 19, 1968, nonrecording gage at site 3.7 mi upstream at different datum. Apr. 19, 1968 to June 18, 1973, water-stage recorder at site 1.0 mi downstream at datum 59.96 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Fishtrap Lake beginning October 1968. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--48 years, 474 ft^3/s, 16.42 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft^3/s, Jan. 29, 1957, gage height, 33.9 ft from floodmark, site and datum then in use, from rating curve extended above 15,000 ft^3/s on basis of slope area measurement of peak flow; maximum gage height, 107.55 ft^3/s, Apr. 5, 1977, from floodmark, backwater from Russell Fork; no flow Apr. 5, 1977, all gates on Fishtrap Dam closed; minimum observed discharge prior to Fishtrap lake, 0.1 ft^3/s, Nov. 8, 9, 1939, site then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,170 ft^3/s, Feb. 20, gage height, 79.48 ft; minimum daily, 29 ft^3/s, Aug. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	227	919	98	481	755	104	66	210	71	69	169
2	160	223	3420	164	733	721	69	55	210	76	43	236
3	161	348	3490	298	1400	690	71	62	201	246	44	147
4	162	608	1550	246	2330	610	72	65	216	234	46	122
5	240	1280	761	193	2170	614	73	62	215	140	47	223
6	288	1340	588	208	1470	437	84	58	213	119	47	185
7	287	913	505	186	1940	507	82	64	116	71	51	106
8	285	589	485	151	2010	468	82	65	248	70	53	105
9	284	372	446	96	1420	396	84	64	474	71	48	73
10	282	263	362	78	1050	395	86	64	318	76	43	62
11	282	303	310	186	895	446	86	64	159	497	43	64
12	212	342	335	162	687	429	86	63	156	629	43	70
13	157	352	455	220	543	465	84	66	155	448	43	70
14	157	374	617	146	456	642	78	651	155	481	43	70
15	157	373	729	146	464	1780	62	1360	155	223	43	274
16	157	263	683	146	467	2370	58	623	126	158	43	337
17	158	208	533	134	396	1620	59	641	93	147	45	285
18	157	256	465	135	1950	1100	60	954	122	46	45	285
19	157	284	306	170	3870	956	61	730	123	44	44	285
20	203	264	248	168	3930	784	60	774	93	44	44	285
21	397	268	233	323	3140	666	61	785	65	43	44	284
22	397	444	211	365	1880	527	58	695	65	43	44	280
23	254	563	300	508	1700	452	64	577	65	69	43	282
24	251	627	291	631	1560	508	65	447	65	82	44	472
25	251	623	288	548	1230	423	65	312	65	95	43	558
26	248	498	143	548	990	331	65	420	70	110	40	358
27	205	1050	113	592	994	328	65	418	71	116	29	272
28	153	1510	245	299	927	333	66	397	71	116	120	378
29	178	101	252	328	---	331	71	415	71	116	123	459
30	235	88	139	455	---	330	73	417	70	115	84	313
31	229	---	120	435	---	239	---	345	---	117	83	---
TOTAL	6904	14954	19542	8363	41083	20653	2154	11779	4436	4913	1624	7109
MEAN	223	498	630	270	1467	666	71.8	380	148	158	52.4	237
MAX	397	1510	3490	631	3930	2370	104	1360	474	629	123	558
MIN	153	88	113	78	396	239	58	55	65	43	29	62

CAL YR 1985 TOTAL 136935 MEAN 375 MAX 4100 MIN 45
WTR YR 1986 TOTAL 143514 MEAN 393 MAX 3930 MIN 29

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03208500 RUSSELL FORK AT HAYSI, VA

LOCATION.--Lat 37°12'25", long 82°17'45", Dickenson County, Hydrologic Unit 05070202, on right bank 180 ft downstream from bridge on State Highway 63, at Haysi, and 700 ft downstream from McClure River.

DRAINAGE AREA.--286 mi^2.

PERIOD OF RECORD.--July 1926 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1003: 1926-43. WSP 1385: 1928(M), 1929, 1933(M), 1935(M), 1937-38(M).

GAGE.--Water-stage recorder. Datum of gage is 1,237.61 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 21, 1939, nonrecording gage at highway bridge 180 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 25, 26, Dec. 8-12, Jan. 7-17, 27-31, July 31 to Aug. 7, and Aug. 15-17, 21-23. Records good except those for periods of doubtful or no gage-height record, Nov. 25, 26, Dec. 8-12, July 31 to Aug. 7, and Aug. 15-17, 21-23, and periods with ice effect, Jan. 7-17, 27-31, which are fair. U.S. Army Corps of Engineers satellite precipitation and gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--60 years, 328 ft^3/s, 15.57 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,000 ft^3/s, Apr. 4, 1977, gage height, 28.24 ft, from rating curve extended above 32,000 ft^3/s on basis of slope-area measurement of peak flow; minimum observed, 0.2 ft^3/s, June 27, 28, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges equal to or greater than base discharge of 4,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 18	0630	*5,670	*7.52	No other peak greater than base discharge.			

Minimum discharge, 13 ft^3/s, Aug. 10, gage height, 1.71 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	20	762	94	173	451	152	74	195	39	19	48
2	25	39	538	101	516	412	147	73	161	280	18	96
3	31	63	354	86	1050	373	142	66	137	147	18	68
4	27	189	254	87	1550	318	132	62	116	76	16	334
5	26	462	208	85	902	275	126	61	105	51	15	200
6	27	293	188	101	647	259	124	62	100	41	15	89
7	25	186	148	65	1640	236	137	63	111	34	14	54
8	20	123	130	40	1060	194	127	92	308	30	14	40
9	18	84	120	45	645	188	124	82	345	30	15	32
10	16	65	110	50	463	181	119	66	198	86	14	28
11	15	55	100	54	379	197	113	63	155	163	40	23
12	15	48	120	56	278	185	110	130	130	184	73	55
13	16	42	144	60	225	223	107	1320	109	101	40	80
14	17	41	181	50	199	551	102	1300	91	86	26	41
15	19	38	184	55	241	1920	99	544	80	59	18	31
16	22	39	183	45	211	1340	103	325	71	47	15	27
17	32	52	165	50	1630	852	105	532	63	47	17	23
18	22	46	145	58	4310	600	100	620	58	39	33	21
19	19	39	132	74	2190	503	88	349	51	33	113	25
20	18	37	142	132	2120	389	85	404	49	30	59	36
21	25	35	141	136	1140	305	113	412	46	48	35	37
22	35	133	185	153	850	261	115	302	42	32	25	36
23	30	230	138	222	867	243	101	237	40	26	28	33
24	25	150	135	226	762	223	89	223	39	24	96	106
25	23	100	123	209	601	201	86	229	40	41	56	75
26	21	70	123	210	489	189	86	247	35	50	31	51
27	20	288	140	160	511	196	87	270	32	86	25	376
28	21	919	110	120	489	181	83	345	31	66	55	160
29	19	1750	108	160	---	166	81	430	44	39	56	100
30	19	922	123	150	---	159	76	314	44	33	34	64
31	19	---	108	120	---	158	---	246	---	25	25	---
TOTAL	683	6558	5742	3254	26138	11929	3259	9543	3026	2073	1058	2390
MEAN	22.0	219	185	105	934	385	109	308	101	66.9	34.1	79.7
MAX	35	1750	762	226	4310	1920	152	1320	345	280	113	376
MIN	15	20	100	40	173	158	76	61	31	24	14	21
CFSM	.08	.77	.65	.37	3.27	1.35	.38	1.08	.35	.23	.12	.28
IN	.09	.85	.75	.42	3.40	1.55	.42	1.24	.39	.27	.14	.31

CAL YR 1985	TOTAL	74981	MEAN	205	MAX	4690	MIN	15	CFSM	.72	IN	9.75
WTR YR 1986	TOTAL	75653	MEAN	207	MAX	4310	MIN	14	CFSM	.72	IN	9.84

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BIG SANDY RIVER BASIN

03209300 RUSSELL FORK AT ELKHORN CITY, KY

LOCATION.--Lat 37°18'14", long 82°20'35", Pike County, Hydrologic Unit 05070202, on left bank 10 ft downstream from steel highway bridge on abandoned section of State Highway 80, at Elkhorn City, 0.9 mi upstream from Elkhorn Creek, and at mile 13.2.

DRAINAGE AREA.--554 mi^2.

PERIOD OF RECORD.--Annual maximum, water years 1957-60 and occasional low-flow measurements, 1958-60. October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 773.00 ft Big Sandy River Survey datum (levels by U.S.Army Corps of Engineers). Mar. 12, 1957 to Jan. 4, 1961, nonrecording gage at site 10 ft upstream at same datum.

REMARKS.-- No estimated daily discharges. Records good. Flow regulated since August 1966 by North Fork Pound River Lake (station 03208680) and since March 1965 by John W. Flannagan Lake (station 03208990). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--26 years, 714 ft^3/s, 17.50 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,200 ft^3/s Apr. 4, 1977, gage height, 24.80 ft; minimum, 4.2 ft^3/s Sept. 20, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 2.4 ft^3/s was measured on Oct. 18, 1930 (exact location unknown).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,430 ft^3/s Feb.20, gage height, 10.94 ft; minimum daily, 73 ft^3/s July 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	185	1310	176	330	1120	289	140	267	138	139	93
2	85	209	3010	209	691	1080	245	138	227	336	131	137
3	92	239	2340	287	1620	950	241	133	199	302	129	127
4	92	359	951	203	3080	768	232	127	176	192	127	335
5	327	1030	691	204	2540	701	223	124	162	155	137	421
6	327	1050	445	174	1980	777	216	125	156	141	166	224
7	96	879	338	174	2900	597	233	126	155	133	153	153
8	90	710	323	131	2200	434	223	156	280	130	154	129
9	85	378	319	131	1740	427	213	151	438	149	153	164
10	85	347	316	143	1200	558	209	133	292	198	155	165
11	84	317	318	144	861	661	200	125	256	261	187	155
12	297	308	365	147	713	551	193	172	228	262	176	198
13	302	305	346	155	568	597	188	1330	197	173	125	259
14	96	305	330	137	517	1080	184	1480	176	146	146	211
15	97	298	342	149	497	2550	176	668	162	118	143	170
16	96	219	405	134	493	1840	176	427	152	100	159	107
17	107	225	526	138	2170	1880	177	505	142	96	156	102
18	101	225	488	140	6500	1910	172	654	134	95	145	97
19	97	271	341	165	5980	1600	160	472	126	104	149	101
20	96	268	270	232	6750	1070	153	567	122	106	131	111
21	143	265	228	254	4470	717	180	532	118	129	111	113
22	233	420	182	341	1850	564	188	414	115	123	128	120
23	269	656	216	431	1920	538	176	332	116	80	149	117
24	239	560	248	454	1760	514	160	303	132	73	230	215
25	193	511	236	440	1590	485	158	286	127	75	167	191
26	190	521	195	442	1250	422	156	323	128	101	87	150
27	188	787	160	471	1060	386	157	352	132	114	81	527
28	188	1320	172	416	1200	368	153	404	130	129	129	320
29	188	2530	160	373	---	347	149	486	134	91	107	191
30	187	1140	141	324	---	336	144	401	146	80	89	145
31	185	---	155	291	---	329	---	325	---	88	76	---
TOTAL	4934	16837	15867	7610	58430	26157	5724	11911	5325	4418	4315	5548
MEAN	159	561	512	245	2087	844	191	384	178	143	139	185
MAX	327	2530	3010	471	6750	2550	289	1480	438	336	230	527
MIN	79	185	141	131	330	329	144	124	115	73	76	93

CAL YR 1985 TOTAL 163528 MEAN 448 MAX 5010 MIN 75
WTR YR 1986 TOTAL 167076 MEAN 458 MAX 6750 MIN 73

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03209500 LEVISA FORK AT PIKEVILLE, KY

LOCATION.--Lat 37°27'51", long 82°31'35", Pike County, Hydrologic Unit 05070203, on right bank 20 ft downstream from bridge on State Highway 1426, 1.0 mi south of Pikeville, 1.5 mi upstream from Harolds Branch, 0.75 mi downstream from Lanks Branch, and at mile 90.5.

DRAINAGE AREA.--1,232 mi².

PERIOD OF RECORD.--October 1937 to current year. Gage-height records collected in this vicinity since 1907 are contained in reports of National Weather Service.

REVISED RECORDS.--WRD KY 78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 631.98 ft (revised) above National Geodetic Vertical Datum of 1929. Prior to Sept. 23, 1944, nonrecording gage at site 2.3 mi downstream at datum 2.65 ft higher. Sept. 23, 1944 to Sept. 30, 1952, water-stage recorder 2.3 mi downstream at datum, 1.65 ft higher. Oct. 1, 1952 to Sept. 30, 1979, at site 2.1 mi downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since October, 1968 by Fishtrap Lake (station 03207995), since August 1966 by North Fork Pound River Lake (station 03208680) and since March 1965 by John W. Flannagan Lake (station 03208990). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--49 years, 1,456 ft³/s, 16.05 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85,500 ft³/s Jan. 30, 1957, gage height, 52.72 ft, from rating curve extended above 45,000 ft³/s on basis of slope-area measurement of peak flow, site and datum then in use; minimum, 1.5 ft³/s Oct. 21, 22, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of February 1862 reached a stage of about 52 ft, at site and datum 2.1 mi downstream, discharge, 82,900 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,100 ft³/s, Feb.20, gage height, 22.96 ft, minimum daily, 158 ft³/s, Aug. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	446	2250	373	954	2460	608	310	628	241	250	411
2	288	555	6630	412	1480	2290	481	290	564	347	233	593
3	266	590	6530	662	3190	2080	462	288	511	595	225	481
4	265	1070	2890	603	6530	1680	453	279	489	505	221	422
5	312	2990	1560	462	5890	1580	440	274	466	337	218	925
6	681	3300	1140	485	4350	1410	432	274	468	308	253	561
7	587	2180	934	426	5610	1480	453	277	410	235	259	337
8	396	1540	876	386	5600	1140	443	344	441	216	251	273
9	387	923	819	278	4060	1010	418	330	1020	222	249	244
10	378	679	738	267	2930	1020	413	296	746	412	243	239
11	375	634	644	370	2050	1300	404	278	501	758	271	238
12	372	642	770	366	1660	1240	393	431	469	977	316	276
13	502	627	1210	433	1320	1170	381	1920	428	769	254	312
14	472	641	1450	348	1150	1720	374	3680	399	787	216	319
15	280	634	1390	349	1090	4870	357	3040	380	571	230	362
16	281	540	1310	342	1190	5950	347	1570	370	311	247	483
17	275	494	1250	334	4290	4380	353	1230	289	389	281	375
18	286	543	1150	318	9300	3840	348	1870	322	220	306	371
19	279	559	815	372	10600	3310	331	1520	315	213	235	386
20	290	567	651	463	11600	2410	316	1960	300	216	305	380
21	564	555	573	592	9070	1700	368	1770	245	242	234	388
22	808	872	488	759	4970	1350	393	1440	237	254	206	382
23	593	1380	603	1000	4720	1180	364	1100	229	234	225	407
24	578	1270	647	1170	4400	1170	341	958	230	224	423	777
25	510	1180	619	1100	3740	1080	329	718	238	227	347	855
26	483	1080	463	1210	3010	953	330	837	227	268	240	541
27	458	2940	340	1330	2630	889	331	892	230	298	158	1070
28	378	5090	478	1060	2880	864	332	975	258	322	235	973
29	377	5890	521	938	---	827	332	1050	232	292	361	802
30	447	2200	376	960	---	805	321	990	233	260	247	545
31	447	---	347	891	---	746	---	852	---	241	217	---
TOTAL	12840	42611	40462	19059	120264	57904	11648	32043	11875	11491	7956	14728
MEAN	414	1420	1305	615	4295	1868	388	1034	396	371	257	491
MAX	808	5890	6630	1330	11600	5950	608	3680	1020	977	423	1070
MIN	225	446	340	267	954	746	316	274	227	213	158	238

CAL YR 1985 TOTAL 373690 MEAN 1024 MAX 9000 MIN 192
WTR YR 1986 TOTAL 382881 MEAN 1049 MAX 11600 MIN 158

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03210000 JOHNS CREEK NEAR META, KY

LOCATION.--Lat 37°34'01", long 82°27'29", Pike County, Hydrologic Unit 05070203, on left bank 10 ft downstream from bridge on U.S. Highway 119, 1,100 ft downstream from Ford Branch, 0.7 mi upstream from Raccoon Creek, 1.2 mi southwest of Meta, and at mile 42.7.

DRAINAGE AREA.--56.3 mi².

PERIOD OF RECORD.--May 1941 to current year.

REVISED RECORDS.--WSP 1705: Drainage area. WRD KY 76-1: 1975.

GAGE:--Water-stage recorder. Datum of gage is 715.66 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1964, water-stage recorder at site 1,200 ft upstream at datum 1.52 ft higher. Oct. 1, 1964 to Dec. 21, 1965, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 8-15, Dec. 20-24, Jan. 28-30, and Feb. 16-18. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--45 years, 69.2 ft³/s, 16.69 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,380 ft³/s, Mar. 12, 1963, gage height, 17.38 ft, from floodmark, site and datum then in use, from rating curve extended above 1,900 ft³/s, on basis of contracted-opening measurement at gage height, 14.54 ft, former site and datum; maximum gage height, 19.62 ft May 7, 1984; no flow at times in many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1939 reached a stage of 15.6 ft, from floodmark, present datum, at site 600 ft upstream, discharge, 4,500 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	2230	*2,220	*14.00	No other peak greater than base discharge.			

Minimum daily discharge, 2.2 ft³/s, Aug. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	6.9	129	25	66	113	28	16	24	6.8	2.6	18
2	27	31	93	21	195	106	29	16	20	31	2.7	20
3	13	20	63	23	409	94	28	12	18	17	2.6	12
4	9.9	117	53	23	356	83	27	12	16	8.0	2.4	9.0
5	8.0	477	53	23	136	70	26	11	16	5.6	2.2	14
6	8.6	303	55	21	52	66	25	12	26	4.7	2.3	9.8
7	6.3	129	49	22	203	62	24	13	16	4.4	2.3	6.5
8	5.3	74	47	20	117	53	23	54	36	3.9	3.6	5.2
9	4.4	45	45	38	50	51	22	25	46	4.1	3.9	4.3
10	4.1	39	40	25	24	51	21	19	29	33	4.1	3.7
11	3.8	35	38	23	18	62	20	15	29	92	8.9	3.3
12	4.0	31	52	23	7.3	62	19	19	26	23	4.5	14
13	4.5	28	220	22	4.2	66	18	75	21	19	2.7	8.2
14	5.0	25	230	30	3.7	100	18	122	18	13	2.5	4.8
15	7.3	23	133	22	3.2	249	18	100	16	9.2	2.5	4.1
16	6.4	20	97	25	8.2	202	19	64	14	7.3	2.3	3.5
17	5.5	23	77	17	250	143	21	60	13	6.5	34	4.1
18	4.7	19	61	17	568	109	19	42	12	5.5	29	4.0
19	4.6	18	47	20	350	92	17	55	11	5.5	11	19
20	5.0	17	41	31	276	72	17	61	12	4.7	6.7	11
21	51	16	37	27	182	59	24	53	10	4.3	4.8	11
22	33	59	33	58	156	51	24	44	9.6	4.1	3.7	6.7
23	15	81	31	88	172	47	20	37	9.1	3.6	3.1	7.2
24	13	64	29	73	166	43	20	30	11	3.3	17	71
25	11	49	28	72	154	39	20	27	11	3.2	7.5	21
26	8.8	45	28	111	138	37	20	25	5.8	3.8	4.4	13
27	7.8	410	33	108	134	40	22	42	5.1	11	4.7	14
28	7.0	1110	25	84	121	36	18	57	4.9	6.2	16	50
29	6.2	917	21	70	---	34	18	39	4.9	4.1	8.7	22
30	6.2	224	19	60	---	32	16	30	5.4	4.8	5.0	15
31	6.3	---	25	56	---	30	---	26	---	3.1	4.0	---
TOTAL	312.3	4455.9	1932	1278	4319.6	2354	641	1213	495.8	355.7	211.7	409.4
MEAN	10.1	149	62.3	41.2	154	75.9	21.4	39.1	16.5	11.5	6.83	13.6
MAX	51	1110	230	111	568	249	29	122	46	92	34	71
MIN	3.8	6.9	19	17	3.2	30	16	11	4.9	3.1	2.2	3.3
CFSM	.18	2.65	1.11	.73	2.74	1.35	.38	.69	.29	.20	.12	.24
IN	.21	2.94	1.28	.84	2.85	1.56	.42	.80	.33	.24	.14	.27

CAL YR 1985 TOTAL 22690.0 MEAN 62.2 MAX 1110 MIN 2.7 CFSM 1.10 IN 14.99
WTR YR 1986 TOTAL 17978.4 MEAN 49.3 MAX 1110 MIN 2.2 CFSM .88 IN 11.88

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BIG SANDY RIVER BASIN

03211500 JOHNS CREEK NEAR VAN LEAR, KY

LOCATION.--Lat 37°44'37", long 82°43'27", Floyd County, Hydrologic Unit 05070203, on right bank 100 ft upstream from Long Branch, 0.3 mi upstream from Daniels Creek, 0.7 mi downstream from Dewey Dam, 2.5 mi southeast of Van Lear, and at mile 4.7.

DRAINAGE AREA.--206 mi².

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 597.28 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Aug. 14, 1940, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges: Records good. Flow regulated since May 1950 by Dewey Lake (station 03211000).

AVERAGE DISCHARGE.--47 years, 231 ft³/s, 15.23 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,350 ft³/s, Jan. 9, 1946, gage height, 26.50 ft from rating curve extended above 3,100 ft³/s; maximum gage height, 27.88 ft, Jan. 30, 1957, (backwater from Levisa Fork); no flow at times during 1957-58, 1962-63, 1973-75, due to closing of outflow gates at Dewey Lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,130 ft³/s, Nov.29, gage height, 14.81 ft; minimum daily discharge, 8.3 ft³/s, July 7-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	84	800	64	193	463	25	9.7	59	12	12	20
2	14	119	2530	64	193	346	14	9.7	39	13	12	37
3	27	115	2130	64	372	305	14	9.7	34	12	12	64
4	48	333	350	64	1030	304	14	9.7	19	12	12	85
5	38	1500	197	63	1250	248	14	9.4	19	12	12	60
6	13	2140	197	63	897	170	14	9.2	18	11	11	26
7	13	1140	197	63	849	146	14	9.2	23	11	10	26
8	13	351	197	63	924	146	14	9.9	27	11	10	17
9	22	221	144	37	546	145	14	9.3	52	11	10	12
10	27	252	82	26	371	133	14	9.2	75	21	10	11
11	27	225	130	26	371	230	14	9.0	76	117	10	11
12	18	214	182	26	307	240	14	8.7	90	190	10	12
13	13	214	540	48	195	186	14	8.7	54	262	10	11
14	13	214	964	59	195	185	14	8.7	35	223	10	11
15	13	157	905	59	251	538	13	22	23	82	9.9	11
16	13	102	454	48	261	803	10	159	15	28	9.7	11
17	13	131	288	22	1260	671	8.7	206	14	20	9.7	11
18	13	139	257	22	2880	362	8.7	143	14	12	9.7	11
19	13	138	173	35	2120	362	8.7	109	14	12	9.7	11
20	12	136	131	64	1890	321	8.8	90	14	12	11	22
21	61	136	132	72	1090	177	9.2	92	14	12	11	40
22	236	136	104	72	654	146	9.2	92	14	12	10	20
23	127	136	77	146	541	146	9.2	92	14	12	10	9.9
24	71	136	107	193	588	146	9.2	76	15	12	10	93
25	71	171	107	235	557	145	9.2	49	14	12	9.7	135
26	40	185	107	279	508	111	9.2	49	13	12	9.7	70
27	27	827	107	357	492	70	9.2	49	13	12	9.7	26
28	27	2060	107	339	506	94	9.2	60	13	12	9.7	200
29	27	2180	87	287	---	94	9.2	121	13	12	9.7	241
30	27	31	64	286	---	93	9.4	122	13	12	9.7	75
31	27	---	64	251	---	66	---	70	---	12	9.7	---
TOTAL	1119	13923	11911	3497	21291	7592	357.1	1731.1	850	1216	319.6	1389.9
MEAN	36.1	464	384	113	760	245	11.9	55.8	28.3	39.2	10.3	46.3
MAX	236	2180	2530	357	2880	803	25	206	90	262	12	241
MIN	12	31	64	22	193	66	8.7	8.7	13	11	9.7	9.9

CAL YR 1985 TOTAL 82224 MEAN 225 MAX 2530 MIN 11
WTR YR 1986 TOTAL 65196.7 MEAN 179 MAX 2880 MIN 8.7

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BIG SANDY RIVER BASIN

03212500 LEVISA FORK AT PAINTSVILLE, KY

LOCATION.--Lat 37°48'55", long 82°47'30", Johnson County, Hydrologic Unit 05070203, on left bank 700 ft downstream from bridge on State Highway 40 at Paintsville, 900 ft downstream from Paint Creek, and at mile 65.2.

DRAINAGE AREA.--2,144 mi².

PERIOD OF RECORD.--June 1915 to September 1916, October 1916 to November 1920 (gage heights only), and October 1928 to current year. Monthly discharge only for October to December 1928, published in WSP 1305. Published as "at Thelma" prior to 1928.

REVISED RECORDS.--WSP 953: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 566.84 ft above National Geodetic Vertical Datum of 1929. June 1, 1915 to Nov. 9, 1920, nonrecording gage at site 3.4 mi downstream at different datum. Dec. 22, 1928 to Apr. 5, 1940, nonrecording gage, Apr. 6, 1940 to Oct. 23, 1953, water-stage recorder, and Oct. 24, 1953 to Oct. 19, 1954, nonrecording gage, at bridge 400 ft upstream at present datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since October 1968 by Fishtrap Lake (station 03207995), since August 1966 by North Fork Pound River Lake (station 03208680), since March 1965 by John W. Flannagan Lake (station 03208990), and since May 1950 by Dewey Lake (station 03211000). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--59 years (1915-16, 1928-86), 2,460 ft³/s, 15.58 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,700 ft³/s, Jan. 31, 1957, gage height, 45.92 ft; minimum, 8.4 ft³/s, July 23-25, 1930, gage-height, 1.06 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1862 reached a stage of 46.6 ft, from levels to floodmark by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,800 ft³/s, Feb.20, gage height, 23.70 ft; minimum daily, 261 ft³/s, June 25, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	413	587	4290	598	1550	4440	1030	428	1000	281	360	362
2	564	711	7880	606	1680	3920	879	403	762	435	357	570
3	514	999	11000	620	3100	3550	756	379	686	490	360	1000
4	499	2110	8310	830	8060	3150	726	362	618	617	340	823
5	464	5810	4160	774	10600	2880	704	353	590	558	333	699
6	448	8500	2320	664	8600	2900	680	345	610	397	326	1080
7	699	5720	1770	680	8100	2750	674	343	602	344	340	783
8	646	3260	1510	608	9410	2630	686	496	597	299	371	554
9	466	2160	1380	515	7570	2230	657	487	597	264	364	434
10	474	1540	1190	426	5470	1910	630	444	1200	349	368	388
11	461	1280	1170	422	4250	1770	616	391	1010	900	385	372
12	455	1180	1180	485	3280	2170	602	436	732	1160	462	433
13	443	1110	2860	535	2530	2060	585	1160	636	1570	442	502
14	557	1080	5030	582	2060	2200	570	3760	530	1240	412	474
15	581	1050	4240	541	1960	4410	557	4570	479	1080	336	473
16	408	939	3200	509	2100	8510	540	3280	434	870	347	446
17	366	909	2470	468	6360	7860	533	1980	408	635	545	622
18	351	838	2180	467	15400	5800	530	1840	343	594	483	515
19	349	870	1720	512	18500	4980	511	2190	342	442	483	592
20	348	869	1340	[illegible]	18800	4290	491	1780	355	355	614	631
21	775	866	1160	748	17300	3100	515	2260	341	346	840	604
22	1570	1460	1060	955	11800	2340	568	1940	289	358	487	579
23	1300	2160	937	1350	7280	1930	547	1550	273	390	393	547
24	926	2030	1030	1670	6900	1760	502	1280	273	363	415	721
25	897	1890	1050	1820	6390	1700	473	1080	261	342	548	1190
26	749	1800	962	2070	5380	1550	454	894	266	336	512	1150
27	653	4970	815	2560	4590	1380	452	1010	261	519	444	855
28	612	10700	698	2410	4500	1330	450	1260	267	458	363	1990
29	522	16000	755	1850	---	1270	455	1340	311	435	337	1620
30	501	10100	755	1800	---	1210	444	1350	283	427	498	1150
31	555	---	634	1740	---	1160	---	1160	---	382	404	---
TOTAL	18566	93498	79056	30465	203520	93150	17817	40551	15356	17236	13269	22159
MEAN	599	3117	2550	983	7269	3005	594	1308	512	556	428	739
MAX	1570	16000	11000	2560	18800	8510	1030	4570	1200	1570	840	1990
MIN	348	587	634	422	1550	1160	444	343	261	264	326	362

CAL YR 1985 TOTAL 705497 MEAN 1933 MAX 16000 MIN 299
WTR YR 1986 TOTAL 644643 MEAN 1766 MAX 18800 MIN 261

03215000 BIG SANDY RIVER AT LOUISA, KY
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Lat 38°10'16", long 82°38'05", Lawrence County, Hydrologic Unit 05070204, at gaging station 1.7 mi upstream from Blaine Creek, 4.3 mi northwest of Louisa, and at mile 21.3.
DRAINAGE AREA.--3,897 mi^2.
PERIOD OF RECORD.--Water years 1950, 1966-72, 1974 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981.
WATER TEMPERATURE: October 1974 to September 1981.
REMARKS.--Flow regulated by Fishtrap Lake, North Fork Pound River Lake, John W. Flannagan Lake and Dewey Lake.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (FT^3/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	BAROMETRIC PRESSURE (MM OF HG)	TURBIDITY (NTU)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 1985											
16...	1040	700	16.0	650	7.70	9.3	95	756	4.5	3300	--
NOV											
25...	1220	3620	10.0	400	7.75	10.5	94	755	--	--	--
DEC											
19...	1200	4010	4.0	425	7.70	11.8	91	755	17	3000	1100
MAR 1986											
07...	1215	4800	5.0	366	7.30	12.1	96	750	13	1700	890
APR											
17...	1300	E912	12.0	520	7.25	11.0	103	755	3.5	150	K68
JUN											
03...	1500	1600	19.0	430	6.70	9.3	102	750	20	--	--
AUG											
20...	1230	442	24.0	675	7.65	7.5	91	750	25	1200	590

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICARBONATE IT-FLD (MG/L AS HCO3)	ALKALINITY, CARBONATE IT-FLD (MG/L - CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 1985											
16...	200	30	45	21	65	3.8	170	--	--	170	37
NOV											
25...	--	--	--	--	--	--	--	--	--	--	--
DEC											
19...	120	72	28	13	19	2.5	--	--	--	92	9.1
MAR 1986											
07...	130	74	27	14	22	4.0	51	--	--	100	11
APR											
17...	180	72	40	19	47	3.1	107	--	--	140	17
JUN											
03...	150	58	35	15	33	3.0	92	--	--	110	13
AUG											
20...	170	50	37	19	71	4.0	125	148	121	150	29

03215000 BIG SANDY RIVER AT LOUISA, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
OCT 1985											
16...	0.1	3.0	417	0.24	<0.01	0.5	0.03	0.01	1.8	1.8	<10
NOV											
25...	--	--	--	--	--	--	--	--	3.7	2.9	--
DEC											
19...	<0.1	8.5	195	0.57	0.04	0.4	0.02	<0.01	--	--	<10
MAR 1986											
07...	0.1	7.3	224	0.55	0.04	0.6	0.03	<0.01	--	--	--
APR											
17...	0.1	1.0	342	<0.10	0.02	0.3	0.02	<0.01	--	--	20
JUN											
03...	0.1	7.4	273	0.80	<0.01	0.3	0.05	0.03	--	--	40
AUG											
20...	0.2	2.9	425	0.36	0.05	0.3	0.05	0.01	--	--	--

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1985											
16...	<1	78	3	2	1	<3	1	18	<1	59	170
NOV											
25...	--	--	--	--	--	--	--	--	--	--	--
DEC											
19...	<1	43	<0.5	<1	<1	<3	1	13	2	10	24
MAR 1986											
07...	--	--	--	--	--	--	--	--	--	--	--
APR											
17...	<1	62	<0.5	<1	<1	<3	3	43	<1	25	18
JUN											
03...	<1	56	<0.5	1	<1	<3	4	17	4	20	19
AUG											
20...	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1985											
16...	0.2	<10	2	<1	<1	620	<6	6	16	30	100
NOV											
25...	--	--	--	--	--	--	--	--	74	723	100
DEC											
19...	0.1	<10	<1	<1	<1	320	<6	14	32	346	100
MAR 1986											
07...	--	--	--	--	--	--	--	--	26	337	100
APR											
17...	<0.1	<10	2	1	<1	570	<6	28	7	--	100
JUN											
03...	<0.1	<10	<1	1	<1	440	<6	16	--	--	--
AUG											
20...	0.2	--	--	--	--	--	--	--	--	--	--

03216350 LITTLE SANDY RIVER BELOW GRAYSON DAM, NEAR LEON, KY

LOCATION.--Lat 38°15,14", long 82°59'28", Carter County, Hydrologic Unit 05090104, on right bank 0.3 mi downstream from Grayson Dam (new channel), 0.3 mi upstream from Big Sinking Creek, 2.4 mi southwest of Leon, and at mile 50.3.

DRAINAGE AREA.--196 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Flow regulated since March 1968 by Grayson Lake (station 03216300).

AVERAGE DISCHARGE.--20 years, 145 ft³/s, 16.35 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 5,600 ft³/s, Mar. 7, 1967; no flow at times some years, due to closing of outflow gates at Grayson Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,770 ft³/s, Dec. 3, gage height, 98.77 ft; minimum daily, 29 ft³/s, May 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	142	309	36	45	113	41	33	32	36	36	39
2	42	146	1530	36	45	111	39	30	32	41	36	39
3	42	166	2550	36	45	111	34	30	32	36	36	39
4	42	219	2650	36	396	239	31	30	33	36	36	39
5	42	230	1570	36	670	259	31	29	33	36	36	39
6	42	207	524	36	462	178	31	29	33	36	36	38
7	42	184	301	36	885	102	31	30	34	36	37	38
8	42	172	246	36	699	99	31	31	38	36	37	38
9	42	164	126	36	516	98	31	31	35	36	37	38
10	42	159	77	36	251	97	31	31	35	37	37	38
11	42	181	79	36	128	129	31	142	35	36	37	38
12	42	212	138	36	121	208	31	78	35	37	37	39
13	42	187	210	36	201	532	31	34	36	37	37	39
14	42	175	559	33	243	933	34	153	36	36	39	38
15	43	166	845	32	244	1010	40	89	36	36	39	38
16	43	172	943	32	245	777	41	41	36	36	39	38
17	43	236	433	32	718	482	41	34	36	36	39	37
18	43	191	130	31	1440	328	41	33	36	36	39	37
19	43	175	123	32	1860	253	41	33	36	36	39	37
20	54	166	122	33	1730	122	41	33	36	36	39	37
21	263	159	121	33	689	116	41	32	36	36	39	37
22	49	156	116	174	133	113	41	32	36	36	39	37
23	93	153	91	533	127	111	41	32	36	36	39	36
24	157	152	76	436	267	110	41	32	36	36	39	36
25	150	149	75	123	408	108	41	32	36	36	39	36
26	153	148	74	122	439	106	41	32	36	36	39	37
27	152	245	49	186	236	107	41	32	36	36	39	40
28	151	499	36	215	116	85	40	32	36	36	39	37
29	150	204	36	216	---	58	40	32	36	36	39	36
30	148	93	36	149	---	58	40	33	36	36	39	36
31	147	---	36	88	---	49	---	32	---	36	39	---
TOTAL	2471	5608	14211	2968	13359	7202	1110	1327	1055	1124	1177	1131
MEAN	79.7	187	458	95.7	477	232	37.0	42.8	35.2	36.3	38.0	37.7
MAX	263	499	2650	533	1860	1010	41	153	38	41	39	40
MIN	42	93	36	31	45	49	31	29	32	36	36	36

CAL YR 1985	TOTAL	69892	MEAN	191	MAX	2650	MIN	34
WTR YR 1986	TOTAL	52743	MEAN	145	MAX	2650	MIN	29

LITTLE SANDY RIVER BASIN

03216500 LITTLE SANDY RIVER AT GRAYSON, KY

LOCATION.--Lat 38°19'48", long 82°56'22", Carter County, Hydrologic Unit 05090104, on left bank 0.3 mi upstreamfrom bridge on U.S. Highway 60, 0.5 mi downstream from Town Branch, 0.5 mi east of Grayson, and at mile 38.1.DRAINAGE AREA.--400 mi^2.

PERIOD OF RECORD.--April 1938 to current year. Prior to October 1964, published as "near Grayson."

REVISED RECORDS.--WSP 1435: 1939(M), 1943(M), 1948(P). WSP 1725: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 557.95 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 11, 1939, nonrecording gage and Aug. 11, 1939 to Jan. 29, 1965, water-stage recorder at site 1.6 mi downstream at same datum. Apr. 6, 1948 to Jan. 29, 1965, supplementary nonrecording gage 800 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 21-31 and Jan. 7-12. Records good except for period of estimated discharge, which are fair. Flow regulated since March 1968 by Grayson Lake (station 03216300). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--48 years, 469 ft^3/s, 15.92 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,500 ft^3/s, Sept. 22, 1950; maximum gage height, 27.53 ft Sept. 22, 1950; site then in use, present datum; minimum discharge observed, 1.5 ft^3/s Oct. 12, 1953. Flood of Sept. 22, 1950, is the highest flood since at least 1884, according to local residents.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of February 1937 reached a stage of 25.0 ft, present datum, from floodmarks at site 1.6 mi downstream, discharge, 16,600 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,150, ft^3/s, Feb. 18, gage height, 16.09 ft; minimum, 41 ft^3/s, Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	199	630	115	168	354	150	98	155	53	44	42
2	53	213	1480	108	168	334	142	85	125	234	43	48
3	56	462	2640	106	211	332	134	80	106	224	44	50
4	54	926	2740	104	835	398	122	76	93	100	42	53
5	55	1100	2370	101	1010	464	119	67	86	76	42	47
6	53	905	851	96	794	393	114	70	107	65	42	46
7	51	573	519	86	1640	292	114	68	330	59	43	44
8	50	438	460	71	1150	262	109	101	602	54	54	43
9	50	363	342	58	862	256	105	126	379	50	50	42
10	50	322	242	59	567	261	101	97	230	58	49	42
11	49	398	254	64	412	444	98	160	213	88	53	41
12	49	766	480	74	358	460	96	1260	276	95	64	65
13	48	551	807	82	398	914	94	708	311	122	58	60
14	49	442	1450	76	466	1490	91	1430	205	97	51	51
15	56	385	1340	79	469	1810	99	1360	153	78	48	47
16	60	358	1320	72	483	1300	101	520	124	68	46	46
17	60	552	947	74	2040	968	103	328	102	62	48	44
18	58	476	383	77	3680	622	101	244	89	68	46	44
19	55	395	317	100	2790	576	96	197	79	60	46	43
20	135	352	298	215	2530	375	93	247	71	54	48	43
21	1200	315	259	215	1410	330	128	185	67	51	50	42
22	317	315	228	287	501	303	156	149	62	49	50	42
23	187	442	224	825	424	288	140	127	58	49	48	58
24	258	368	224	985	460	275	123	112	55	48	51	54
25	257	326	214	527	619	259	114	101	51	46	46	47
26	249	305	170	370	671	250	112	97	48	46	45	55
27	231	1580	148	345	537	252	108	102	47	46	50	92
28	218	2650	136	358	381	250	104	115	46	46	48	274
29	212	2390	122	371	---	184	111	185	45	45	46	106
30	206	1060	104	271	---	183	107	611	44	46	44	68
31	203	---	105	211	---	173	---	233	---	45	43	---
TOTAL	4681	19927	21804	6582	26034	15052	3385	9339	4359	2282	1482	1779
MEAN	151	664	703	212	930	486	113	301	145	73.6	47.8	59.3
MAX	1200	2650	2740	985	3680	1810	156	1430	602	234	64	274
MIN	48	199	104	58	168	173	91	67	44	45	42	41

CAL YR 1985 TOTAL 149987 MEAN 411 MAX 3180 MIN 44
WTR YR 1986 TOTAL 116706 MEAN 320 MAX 3680 MIN 41

LITTLE SANDY RIVER BASIN

03216540 EAST FORK LITTLE SANDY RIVER NEAR FALLSBURG, KY

LOCATION.--Lat 38°14'01", long 82°42'32", Lawrence County, Hydrologic Unit 05090104, on left bank 15 ft upstream from bridge on State Highway 3, 300 ft upstream from Seedtick Branch, 0.5 mi downstream from Lambert Branch, 4.4 mi northwest of Fallsburg, and at mile 37.8.

DRAINAGE AREA.--12.2 mi^2.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 661.40 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-21, and June 26. Records fair except for estimated daily discharges, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--14 years, 14.6 ft^3/s, 16.25 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,510 ft^3/s, July 4, 1979, gage height, 9.90 ft; from rating curve extended above 610 ft^3/s; maximum gage height, 10.42 ft, Mar. 12, 1975; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 17	----	*314	*7.73				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	1.9	13	2.1	4.2	13	3.8	1.3	2.8	.19	.00	.00
2	.50	23	13	2.3	5.1	12	3.8	1.3	1.6	2.6	.00	.12
3	.56	90	10	2.5	8.2	12	3.6	1.0	.93	.93	.00	.65
4	.36	75	6.0	2.1	24	11	3.5	.93	.72	.42	.00	.25
5	.42	94	7.0	2.3	14	10	3.1	.79	.86	.23	.00	.11
6	.32	50	7.0	1.9	14	11	2.8	.79	3.3	.12	.00	.00
7	.28	22	6.0	1.8	24	9.8	2.8	.93	3.3	.00	.00	.00
8	.26	15	5.8	1.3	14	7.0	2.8	4.2	11	.00	.04	.00
9	.16	10	5.6	.86	9.4	8.4	2.5	2.2	2.9	.19	.00	.00
10	.13	7.9	5.1	1.0	8.6	6.8	2.8	1.1	2.6	.27	.02	.00
11	.20	16	4.9	1.2	8.8	14	2.3	1.0	4.1	1.5	.03	.00
12	.19	37	14	1.4	9.2	12	2.1	3.3	17	1.4	.00	.28
13	.20	22	47	1.7	7.9	16	2.1	12	9.0	1.8	.09	.00
14	.04	15	29	1.4	8.8	54	1.9	39	4.2	1.0	.01	.00
15	1.9	11	13	1.3	8.4	32	1.8	16	2.6	.64	.00	.00
16	3.8	12	9.6	1.2	11	17	1.6	5.8	1.6	.27	.00	.00
17	7.0	23	7.7	1.5	105	13	1.8	2.6	.86	.27	.06	.00
18	4.5	14	6.4	2.1	50	11	1.5	2.2	.42	.19	.01	.00
19	3.0	10	4.6	6.0	23	9.8	1.4	1.4	.32	.16	.00	.00
20	15	7.9	4.6	8.2	18	7.9	1.3	2.8	.23	.08	.18	.00
21	8.0	3.6	5.1	7.0	15	6.8	4.7	1.6	.32	.12	.09	.00
22	2.9	15	4.4	25	13	5.6	4.2	1.1	.08	.12	.01	.00
23	1.7	14	4.6	30	11	5.3	2.5	.86	.00	.00	.00	.00
24	5.8	7.0	4.4	16	11	5.3	1.3	.79	.00	.00	.00	.00
25	6.8	5.1	3.5	9.2	11	4.6	1.5	.56	.00	.00	.00	.00
26	2.8	11	2.5	8.2	13	4.6	1.5	.49	.02	.00	.00	.01
27	1.8	97	3.2	6.0	14	5.8	1.2	.93	.04	.00	.00	1.6
28	1.4	92	3.2	4.2	16	4.9	1.1	.93	.00	.00	.00	8.4
29	1.0	37	2.9	5.1	---	4.2	1.4	4.1	.00	.00	.00	1.8
30	1.0	18	2.6	4.2	---	4.1	1.3	29	.00	.00	.00	.99
31	1.3	---	2.3	4.2	---	3.9	---	6.2	---	.00	.00	---
TOTAL	73.65	856.4	258.0	163.26	479.6	342.8	70.0	147.20	70.80	12.50	.54	14.21
MEAN	2.38	28.5	8.32	5.27	17.1	11.1	2.33	4.75	2.36	.40	.02	.47
MAX	15	97	47	30	105	54	4.7	39	17	2.6	.18	8.4
MIN	.04	1.9	2.3	.86	4.2	3.9	1.1	.49	.00	.00	.00	.00
CFSM	.20	2.34	.68	.43	1.40	.91	.19	.39	.19	.03	.00	.04
IN	.22	2.61	.79	.50	1.46	1.05	.21	.45	.22	.04	.00	.04

CAL YR 1985 TOTAL 4377.56 MEAN 12.0 MAX 251 MIN .00 CFSM .98 IN 13.35
WTR YR 1986 TOTAL 2488.96 MEAN 6.82 MAX 105 MIN .00 CFSM .56 IN 7.59

OHIO RIVER MAIN STEM

03216600 OHIO RIVER AT GREENUP DAM, KY

LOCATION.--Lat 38°38'48", long 82°51'38", Greenup County, Hydrologic Unit 05090103, at left bank at downstream end of lock guidewall in lower pool at Greenup locks, 1.1 mi upstream from Grays Branch, 4.7 mi downstream from Little Sandy River, 5.0 mi north of Greenup, and at mile 341.5.

DRAINAGE AREA.--62,000 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 472.43 ft above National Geodetic Vertical Datum of 1929 or 472.97 ft Ohio River Datum. Record of Greenup Dam headwater, tailwater, gate openings and lockages used to determine discharge from Oct. 1, 1968 to Sept. 30, 1981. Auxiliary water-stage recorder is located at Portsmouth, Ohio, 14.1 mi downstream, established Oct. 1, 1981 and used in slope rating computation from Oct. 1, 1981 to Sept. 30, 1983. Datum of gage is 470.43 National Geodetic Vertical Datum of 1929 or 470.99 Ohio River Datum. Since Oct. 1, 1983, discharge has been computed using the Branch Model. Stage record for this model is obtained from the Greenup Dam Tailwater and Portsmouth Ohio gages.

REMARKS.--Estimated daily discharges: Jan. 21-25. Records good except below 20,000 ft^3/s, which are poor. Flow regulated by Ohio River system of locks, dams, and reservoirs upstream from station.

AVERAGE DISCHARGE.--18 years, 91,110 ft^3/s, 19.96 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 540,000 ft^3/s, Jan. 12, 1974, maximum observed headwater gage height, 30.63 ft, Feb. 28, 1979, maximum tailwater gage height, 59.19 ft, Feb. 28, 1979; minimum daily discharge, 4,930 ft^3/s, Sept. 25, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 454,000 ft^3/s, Nov. 30; maximum gage height, 53.71 ft; Dec.1; minimum daily discharge, 8,300 ft^3/s, Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15200	13400	442000	36200	64500	146000	38200	49600	40300	62100	20900	12600
2	14100	17200	406000	38700	63800	129000	38000	44600	24500	104000	19900	11200
3	15400	25100	336000	41900	87400	101000	36900	42500	24400	160000	17900	17900
4	15600	57300	276000	42200	152000	87100	23900	34300	20800	146000	18000	23300
5	12800	199000	222000	35100	269000	82500	32800	25000	20600	131000	12100	27200
6	13000	320000	211000	43100	324000	78800	26700	21200	32900	92100	15200	24000
7	22700	369000	169000	36900	364000	79600	36600	31800	48800	53400	18500	23900
8	15000	376000	153000	35600	386000	78700	43700	45100	61600	28200	20100	18400
9	10300	301000	142000	25400	362000	72100	47600	32200	61400	38200	19200	9900
10	13300	183000	119000	34700	284000	58600	44300	42000	59000	65000	13500	10000
11	14000	136000	110000	27200	207000	86800	47200	27400	54900	61300	27200	18400
12	13300	151000	131000	29900	197000	136000	41100	27800	54400	89300	28700	13700
13	12200	195000	219000	30000	160000	187000	39100	23000	93400	78700	16400	12600
14	12700	240000	270000	30900	139000	221000	44200	45000	116000	73000	25900	15400
15	13100	225000	277000	30000	126000	229000	45700	53100	109000	67800	17800	14500
16	13200	202000	239000	29600	116000	288000	39600	43000	83500	58900	10500	15300
17	12300	234000	202000	22800	123000	316000	49600	41100	78000	46800	20200	17000
18	9690	281000	156000	25400	244000	285000	62200	31200	81700	43500	21500	8300
19	10500	290000	140000	33900	312000	218000	70700	34600	80600	44000	17000	14000
20	26900	228000	116000	67100	322000	216000	76100	36800	69600	32000	15400	18000
21	37100	163000	90300	123000	308000	172000	70100	73200	66600	52200	22100	14000
22	46300	138000	76700	181000	292000	142000	64800	84100	50800	59400	17300	18000
23	36200	139000	65200	253000	260000	131000	84700	81300	47000	67900	13500	14000
24	31400	150000	56500	233000	227000	108000	89700	53200	37700	64600	23200	19000
25	29500	152000	65300	204000	211000	88500	89800	41300	38900	53800	31900	34000
26	18300	134000	56200	206000	207000	73500	81600	33900	20600	41900	12000	24200
27	21500	169000	44700	151000	177000	71700	68500	36600	24100	37600	26200	52900
28	25800	311000	46200	133000	164000	58800	46400	32000	40600	31500	22000	36000
29	18600	405000	44100	105000	---	53600	47900	39200	27800	35900	15200	67100
30	16100	454000	32000	87500	---	54300	52100	37100	46600	30500	12800	52900
31	12200	---	36300	73600	---	40100	---	46700	---	18100	16900	---
TOTAL	578290	6258000	4949500	2446700	6148700	4089700	1579800	1299900	1616100	1968700	589000	657700
MEAN	18650	208600	159700	78930	219600	131900	52660	41930	53870	63510	19000	21920
MAX	46300	454000	442000	253000	386000	316000	89800	84100	116000	160000	31900	67100
MIN	9690	13400	32000	22800	63800	40100	23900	21200	20600	18100	10500	8300

CAL YR 1985 TOTAL 31721470 MEAN 86910 MAX 454000 MIN 8570
WTR YR 1986 TOTAL 32182090 MEAN 88170 MAX 454000 MIN 8300

03216600 OHIO RIVER AT GREENUP DAM, KY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to September 1986 (discontinued).
PERIOD OF DAILY RECORD.--
  SPECIFIC CONDUCTANCE: October 1974 to September 1981.
  WATER TEMPERATURES: October 1974 to September 1981.
REMARKS.--Flow regulated by Ohio River system of locks, dams, and reservoirs.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (NTU)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 1985											
13...	1230	187000	13.5	240	6.70	9.0	88	748	5.5	--	1300
FEB 1986											
19...	1300	328000	5.5	249	7.30	12.2	100	735	130	590	--
MAY											
29...	1200	45700	21.0	300	7.30	9.5	110	740	3.0	K310	K4
AUG											
19...	1400	18500	28.5	320	7.70	6.8	90	743	15	320	48

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV 1985											
13...	92	60	26	6.6	12	2.9	32	39	32	56	14
FEB 1986											
19...	84	37	22	6.9	12	2.0	43	57	47	51	15
MAY											
29...	110	62	28	8.6	17	2.2	44	54	44	68	19
AUG											
19...	110	65	29	8.8	21	2.4	44	54	44	66	23

03216600 OHIO RIVER AT GREENUP DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)
NOV 1985											
13...	0.2	5.1	153	<0.10	0.06	2.0	0.51	0.01	100	<1	46
FEB 1986											
19...	<0.1	6.1	138	1.00	0.11	1.2	0.08	<0.01	<10	<1	35
MAY											
29...	0.1	2.1	191	0.63	0.03	0.5	0.04	0.02	90	<1	41
AUG											
19...	0.2	0.5	187	0.50	0.09	0.5	0.05	0.02	--	--	--

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
NOV 1985										
13...	1	3	<1	<3	6	110	5	<4	31	<0.1
FEB 1986										
19...	<0.5	2	<1	<3	2	10	1	6	110	<0.1
MAY										
29...	<0.5	<1	1	<3	11	240	4	7	41	<0.1
AUG										
19...	--	--	--	--	--	--	--	--	--	--

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SEDI- SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1985										
13...	<10	4	<1	<1	120	<6	4	536	271000	100
FEB 1986										
19...	<10	5	<1	<1	140	<6	8	407	360000	100
MAY										
29...	<10	8	<1	<1	170	<6	18	14	1730	100
AUG										
19...	--	--	--	--	--	--	--	15	749	100

BEST COPY AVAILABLE

03216800 TYGARTS CREEK AT OLIVE HILL, KY

LOCATION.--Lat 38°17'57", long 83°10'25", Carter County, Hydrologic Unit 05090103, on left bank 100 ft downstream from county road 986 at Olive Hill, 0.3 mi downstream from Henderson Branch, 0.6 mi upstream from Bens Run, and at mile 78.0.

DRAINAGE AREA.--59.6 mi².

PERIOD OF RECORD.--January 1957 to current year.

REVISED RECORDS.--WRD KY-79: 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 739.18 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 18 to Jan. 17, and Feb. 13, 14. Record good except for estimated daily discharges, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--29 years, 84.8 ft³/s, 19.32 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,470 ft³/s, Apr. 22, 1972, gage height, 17.06 ft; maximum gage height, 19.04 ft, Mar. 12, 1975; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
July 2	0800	*2,720	*8.60	No other peak greater than base discharge			

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	15	90	9.1	30	57	30	14	26	30	.14	.61
2	2.5	35	78	8.5	29	54	26	13	33	741	.00	4.0
3	2.8	100	66	8.1	37	55	25	10	19	103	.00	3.5
4	1.8	210	58	7.7	124	52	27	9.3	16	35	.00	.93
5	2.1	160	51	7.3	122	49	28	8.8	21	16	.00	.51
6	1.6	130	50	7.0	169	52	26	8.4	34	8.3	.00	.12
7	1.4	100	47	6.7	427	49	25	8.0	64	4.8	.19	.00
8	1.3	80	44	6.5	169	42	23	18	144	3.1	.50	.00
9	.80	60	42	7.1	113	42	19	13	175	2.7	.22	.00
10	.63	50	41	8.5	92	88	19	9.0	85	6.7	.12	.00
11	1.0	90	40	8.5	84	370	17	91	87	5.7	1.8	.00
12	.97	170	60	7.4	76	213	17	82	118	98	2.6	28
13	1.0	120	100	7.1	73	964	16	74	73	83	1.1	4.2
14	.18	82	170	6.2	72	379	12	468	43	41	.73	1.3
15	9.6	72	120	5.4	64	227	12	193	28	18	.42	1.2
16	19	86	94	4.9	88	142	8.4	103	28	11	.20	.73
17	4.7	270	80	7.4	980	105	8.3	69	15	7.0	2.3	.29
18	4.0	86	61	14	484	87	7.4	52	9.2	4.4	3.9	.37
19	3.5	70	47	44	200	131	6.7	40	6.3	2.5	1.4	.43
20	40	62	37	65	129	99	8.2	33	5.8	2.4	.87	.40
21	320	54	33	56	99	76	41	27	7.8	5.1	.65	.68
22	160	47	31	106	76	65	32	22	4.2	4.1	.52	.94
23	70	43	28	79	64	61	21	17	3.0	2.1	.50	.60
24	43	40	25	63	62	56	16	13	2.1	1.4	.64	.34
25	33	37	23	58	58	49	14	11	1.6	.99	.60	.47
26	28	90	20	53	65	46	14	9.9	1.0	.95	.42	173
27	23	300	17	47	66	46	12	73	.76	1.1	.69	167
28	20	370	15	44	64	41	13	46	.70	1.8	.60	154
29	18	280	12	45	---	38	23	187	.66	1.1	.90	26
30	16	140	11	37	---	36	16	81	.58	.73	.93	9.7
31	15	---	9.7	32	---	32	---	41	---	.43	.75	---
TOTAL	846.48	3449	1600.7	866.4	4116	3803	563.0	1844.4	1052.70	1243.40	23.69	579.32
MEAN	27.3	115	51.6	27.9	147	123	18.8	59.5	35.1	40.1	.76	19.3
MAX	320	370	170	106	980	964	41	468	175	741	3.9	173
MIN	.18	15	9.7	4.9	29	32	6.7	8.0	.58	.43	.00	.00
CFSM	.46	1.93	.87	.47	2.47	2.06	.32	.00	.59	.67	.01	.32
IN	.53	2.15	.00	.54	2.57	2.37	.35	1.15	.66	.78	.01	.36

CAL YR 1985 TOTAL 28782.81 MEAN 78.9 MAX 885 MIN .00 CFSM 1.32 IN 17.97
WTR YR 1986 TOTAL 19988.09 MEAN 54.8 MAX 980 MIN .00 CFSM .92 IN 12.48

03217000 TYGARTS CREEK NEAR GREENUP, KY

LOCATION.--Lat 38°33'51", long 82°57'08", Greenup County, Hydrologic Unit 05090103, on downstream side of center pier of bridge on State Highway 7, 100 ft downstream from Lick Run, 0.4 mi upstream from White Oak Creek, 6.5 mi west of Greenup, and at mile 28.1.

DRAINAGE AREA.--242 mi².

PERIOD OF RECORD.--August 1940 to current year.

REVISED RECORDS.--WSP 1113: 1942-43, 1945-46. WSP 1625: 1958. WSP 1725: Drainage area. WRD KY 79-1: 1948(P), 1950(M), 1952(M), 1962(M), 1967(P), 1970(M), 1972-76(M), 1978(M).

GAGE.--Water-stage recorder. Datum of gage is 547.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 19, Jan. 27 to Feb. 2, 12-15 and Mar. 11 to Apr. 8. Records poor. Occasional regulation at low flow caused by withdrawal of water for cooling purposes by gas transmission plant above station. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--46 years, 304 ft³/s, 17.06 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,400 ft³/s, Dec. 9, 1979, gage height, 22.75 ft from rating curve extended above 8,700 ft³/s on basis of contracted-opening measurement of peak flow; no flow at times in several years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 22	0200	3,680	13.20	Jul. 2	0800	*3,940	*14.08
Feb. 18	0900	3,600	13.24				

Minimum daily discharge, 0.70 ft³/s, Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	107	647	115	158	301	155	80	105	279	8.0	3.0
2	1.3	126	546	100	150	280	142	68	73	3300	6.9	2.9
3	.70	467	463	90	144	279	132	59	55	1140	7.2	3.0
4	1.5	1500	398	80	322	280	122	52	53	299	6.4	3.7
5	2.1	1340	367	82	526	259	135	46	42	178	5.7	5.6
6	5.0	1160	364	78	464	246	125	42	58	114	5.2	11
7	7.0	699	356	70	827	235	110	42	169	82	4.3	5.7
8	1.7	533	330	62	786	207	94	106	172	61	3.9	4.1
9	1.7	443	315	54	499	201	87	133	212	48	3.7	3.6
10	2.4	379	292	48	395	213	83	98	320	45	3.8	3.1
11	3.6	379	288	45	359	221	78	77	776	59	4.1	3.1
12	3.2	1310	624	44	338	1330	73	1930	449	361	4.2	5.2
13	2.4	1030	889	42	320	1020	71	833	423	382	3.8	4.5
14	2.5	646	1200	41	300	2090	66	1840	275	297	5.1	4.0
15	3.4	509	722	40	280	1210	64	1950	188	210	16	34
16	4.2	562	561	39	345	860	62	581	137	135	8.5	19
17	5.9	1920	491	38	1090	645	60	375	102	96	4.9	10
18	38	852	447	44	2890	500	54	273	82	74	11	5.9
19	27	577	400	100	1030	430	50	209	61	57	9.2	4.0
20	46	480	360	296	594	620	47	166	48	45	5.3	3.5
21	2000	409	320	336	471	490	80	133	41	36	4.8	2.8
22	1690	363	290	461	387	375	142	106	34	29	4.4	2.5
23	439	335	265	549	337	335	139	90	28	28	4.4	1.8
24	319	300	240	391	303	305	108	77	25	25	5.7	9.4
25	257	267	210	326	285	275	92	65	19	22	5.7	6.5
26	220	279	200	290	302	260	85	56	15	19	5.2	26
27	180	1910	190	240	320	240	78	72	13	21	4.9	24
28	152	2670	180	200	318	250	72	219	11	20	5.0	246
29	130	2150	165	190	---	210	77	175	9.8	15	4.2	192
30	116	935	140	178	---	180	81	236	8.6	13	3.8	81
31	109	---	130	165	---	168	---	186	---	10	3.4	---
TOTAL	5775.70	24637	12390	4834	14540	14515	2764	10375	4004.4	7500	178.7	730.9
MEAN	186	821	400	156	519	468	92.1	335	133	242	5.76	24.4
MAX	2000	2670	1200	549	2890	2090	155	1950	776	3300	16	246
MIN	.70	107	130	38	144	168	47	42	8.6	10	3.4	1.8
CFSM	.77	3.39	1.65	.64	2.14	1.93	.38	1.38	.55	1.00	.02	.10
IN	.89	3.79	1.90	.74	2.24	2.23	.42	1.59	.62	1.15	.03	.11

CAL YR 1985 TOTAL 136467.80 MEAN 374 MAX 3440 MIN .70 CFSM 1.55 IN 20.98
WTR YR 1986 TOTAL 102244.70 MEAN 280 MAX 3300 MIN .70 CFSM 1.16 IN 15.72

CABIN CREEK BASIN

03237900 CABIN CREEK NEAR TOLLESBORO, KY

LOCATION.--Lat 38°34'04", long 83°32'14", Lewis County, Hydrologic Unit 05090201, on left bank 20 ft upstream of bridge on State Highway 10, 0.1 mi downstream from Bethel Creek, 2.0 mi east of Tollesboro, 2.2 mi upstream from Indian Creek, and at mile 11.3.

DRAINAGE AREA.--22.4 mi^2.

PERIOD OF RECORD.--April 1972 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 615.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 18, Jan. 25-31 and Feb. 11-16. Records good except for estimated daily discharges, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--14 years, 29.7 ft^3/s, 18.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,370 ft^3/s, Apr. 22, 1972, gage height, 14.42 ft, from rating curve extended above 797 ft^3/s on basis of contracted-opening measurement of peak flow; no flow on many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft^3/s and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Discharge (ft^3/s)	Gage height (ft)
Jul. 2	0300	*4,670	*11.13	No other peak greater than base discharge.	

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	6.9	26	4.5	6.5	14	6.4	6.4	1.1	151	.42	.25
2	.28	13	25	4.3	6.9	12	6.3	6.0	1.1	884	.36	.23
3	.18	258	15	4.1	42	14	5.8	5.4	.99	50	.32	.18
4	.15	50	13	3.9	166	12	5.6	5.2	.91	20	.26	.26
5	.14	140	13	3.6	114	11	5.4	5.2	7.9	9.5	.19	4.6
6	.07	37	14	3.5	122	18	11	5.5	194	5.9	.14	1.0
7	.07	19	11	3.3	135	16	8.9	6.4	111	4.1	.08	.76
8	.04	15	11	3.1	41	11	6.3	17	75	2.9	.03	.65
9	.00	11	9.6	3.0	26	11	5.3	6.8	9.3	2.5	.00	.55
10	.00	8.6	8.6	2.8	20	11	5.1	5.6	114	49	.02	.48
11	.00	179	135	2.7	18	10	5.0	5.1	63	13	.22	.44
12	.00	270	76	2.6	15	48	4.6	5.5	193	56	.23	25
13	.00	61	109	2.5	13	273	4.4	12	.7	15	.29	1.8
14	.48	31	43	2.4	12	48	4.4	154	5.3	7.2	.32	1.1
15	8.7	19	23	2.3	10	29	5.3	30	2.8	2.9	.31	.81
16	.93	177	19	2.1	80	20	5.0	12	1.8	2.0	.27	.68
17	.63	59	17	2.0	319	15	4.8	5.9	1.5	1.6	.73	.60
18	.52	35	12	3.0	64	14	4.4	3.0	1.3	1.4	.72	.56
19	.43	27	9.1	31	35	120	4.1	2.0	1.2	1.3	.54	.55
20	170	22	8.9	30	25	28	7.0	1.8	1.8	1.1	.45	.51
21	36	19	8.2	28	21	17	15	1.7	1.3	1.1	.38	.50
22	12	18	8.0	32	18	14	10	1.6	1.1	1.0	.34	.44
23	8.2	16	7.8	16	14	12	6.8	1.4	1.0	.87	.31	.42
24	7.7	14	7.0	11	15	10	5.9	1.3	.92	.77	.33	31
25	6.8	12	6.4	9.0	21	9.4	5.7	1.3	.82	.69	.26	4.3
26	5.4	109	5.7	7.3	22	8.8	5.7	1.3	.78	.66	.20	1.4
27	4.9	298	5.4	7.1	33	8.4	5.4	2.6	.77	.65	.41	28
28	4.3	450	5.2	6.9	20	7.4	7.5	6.9	.75	.67	.51	6.4
29	3.7	65	5.1	6.8	---	7.3	7.4	1.6	.75	.63	.39	1.8
30	4.0	33	4.9	6.2	---	6.9	6.4	1.4	.72	.55	.32	1.1
31	8.9	---	4.7	6.0	---	6.7	---	1.2	---	.50	.27	---
TOTAL	284.56	2472.5	666.6	253.0	1434.4	842.9	190.9	323.1	812.91	1288.49	9.62	116.37
MEAN	9.18	82.4	21.5	8.16	51.2	27.2	6.36	10.4	27.1	41.6	.31	3.88
MAX	170	450	135	32	319	273	15	154	194	884	.73	31
MIN	.00	6.9	4.7	2.0	6.5	6.7	4.1	1.2	.72	.50	.00	.18
CFSM	.41	3.68	.96	.36	2.29	1.21	.28	.46	1.21	1.86	.01	.17
IN	.47	4.11	1.11	.42	2.38	1.40	.32	.54	1.35	2.14	.02	.19

CAL YR 1985 TOTAL 9859.52 MEAN 27.0 MAX 728 MIN .00 CFSM 1.21 IN 16.37
WTR YR 1986 TOTAL 8695.35 MEAN 23.8 MAX 884 MIN .00 CFSM 1.06 IN 14.44

LICKING RIVER BASIN

03248500 LICKING RIVER NEAR SALYERSVILLE, KY

LOCATION.--Lat 37°45'03", long 83°05'04", Magoffin County, Hydrologic Unit 05100101, on left bank on downstream side of bridge on State Highway 30, 0.8 mi upstream from Gardner Branch, 1.2 mi west of Salyersville, 2.9 mi downstream from State Road Fork, and at mile 266.9.

DRAINAGE AREA.--140 mi².

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for October to December 1938, publishedin WSP 1305.

REVISED RECORDS.--WSP 923: 1939-40, drainage area. WSP 1505: 1955(M), 1956(P).

GAGE.--Water-stage recorder. Datum of gage is 823.80 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 27, 1939, nonrecording gage at same site and datum. Feb. 27, 1939 to Sept. 27, 1965, water-stage recorder on upstream side of bridge at same datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 22, Dec. 23-26, Dec. 28 to Jan. 9, 11-16, and Feb. 3-10. Records fair except those for estimated daily discharge which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality section.

AVERAGE DISCHARGE.--48 years, 172 ft³/s, 16.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft³/s, Feb. 3, 1939, gage height, 25.4 ft, from floodmark; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 29	1900	2,410	18.87	Feb. 18	0900	*2,600	*19.08

Minimum daily discharge, 1.5 ft³/s, Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	20	463	60	123	198	62	26	35	15	5.6	4.0
2	91	18	329	58	140	184	59	25	30	69	4.6	4.4
3	5.7	66	233	55	371	178	56	24	26	50	4.0	7.4
4	5.0	200	188	52	520	160	54	23	23	21	3.6	7.2
5	4.5	380	176	50	440	145	50	22	25	13	3.3	6.0
6	4.0	490	184	48	400	140	48	22	55	9.9	3.0	5.6
7	3.5	310	152	46	630	131	47	21	83	8.2	2.9	4.2
8	3.0	205	138	44	500	113	47	39	100	7.0	2.7	3.4
9	2.8	160	129	42	390	108	42	34	61	6.3	2.4	3.0
10	2.4	135	119	49	310	103	40	24	48	33	3.7	2.5
11	2.1	115	115	37	272	151	39	20	93	39	6.1	2.4
12	1.8	103	127	34	223	143	37	224	65	57	4.0	17
13	1.6	94	515	33	191	150	38	134	48	70	8.1	20
14	1.8	86	659	32	180	164	38	270	38	61	4.4	13
15	1.6	80	370	31	177	278	39	267	32	28	3.3	7.8
16	2.5	72	281	30	217	259	36	151	26	21	2.8	5.8
17	2.2	85	233	41	1340	217	40	252	25	35	2.8	5.0
18	1.9	100	190	44	2360	187	39	118	22	20	3.4	4.6
19	1.6	80	147	85	1460	171	35	83	20	15	3.5	29
20	1.5	68	136	122	1470	146	33	88	18	13	5.5	22
21	35	56	127	107	649	122	45	67	17	14	16	13
22	110	230	120	179	411	107	44	60	15	12	15	13
23	75	213	108	207	336	99	36	55	15	9.0	7.0	15
24	60	131	100	167	286	92	32	50	15	7.8	11	71
25	74	100	92	154	267	84	32	44	14	5.8	6.9	43
26	94	97	85	178	235	78	30	43	14	4.7	4.9	21
27	48	1180	84	184	243	81	29	43	12	71	5.5	38
28	36	1790	76	158	226	79	28	76	11	32	11	30
29	30	2320	71	177	---	71	33	71	21	15	10	20
30	25	1270	67	154	---	67	29	54	16	9.4	6.5	18
31	22	---	63	127	---	65	---	42	---	6.9	4.2	---
TOTAL	768.5	10254	5877	2785	14367	4271	1217	2472	1023	779.0	177.7	456.3
MEAN	24.8	342	190	89.8	513	138	40.6	79.7	34.1	25.1	5.73	15.2
MAX	110	2320	659	207	2360	278	62	270	100	71	16	71
MIN	1.5	18	63	30	123	65	28	20	11	4.7	2.4	2.4
CFSM	.18	2.44	1.36	.64	3.66	.99	.29	.57	.24	.18	.04	.11
IN	.20	2.72	1.56	.74	3.82	1.13	.32	.66	.27	.21	.05	.12

CAL YR 1985 TOTAL 73991.2 MEAN 203 MAX 2320 MIN 1.5 CFSM 1.45 IN 19.66
WTR YR 1986 TOTAL 44447.5 MEAN 122 MAX 2360 MIN 1.5 CFSM .87 IN 11.81

03249500 LICKING RIVER AT FARMERS, KY

LOCATION.--Lat 38°06'55", long 83°32'36", Bath County, Hydrologic Unit 05100101, on left bank 0.2 mi downstream from Hog Hollow, 0.6 mi downstream from Cave Run Dam, 1.9 mi south of Farmers, 4.5 mi upstream from Triplett Creek, and at mile 174.

DRAINAGE AREA.--827 mi², revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1915 to June 1920 (gage heights only), May 1928 to September 1931, December 1936 to February 1937 (in WSP 838), April 1938 to current year. All figures of discharge above 2,000 ft³/s prior to April 1938 are unreliable and should not be used. Gage-height records collected at former site since 1915 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1275: 1928-31, 1937. WSP 1505: 1950(P). WSP 1705: 1952, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 644.55 ft above National Geodetic Vertical Datum of 1929. July 22, 1915 to June 30, 1920, nonrecording gage at site 400 ft downstream from present auxiliary gage, at datum 0.21 ft lower. May 22, 1928 to Sept. 1, 1939, nonrecording gage and Sept. 2, 1939 to July 13, 1942, water-stage recorder at site 100 ft downstream from present auxiliary gage at present datum. July 14, 1942 to Oct. 20, 1965, water-stage recorder at site and datum of present auxiliary gage. Auxiliary gages: Water-stage recorder on U.S. Highway 60 bridge, 3.4 mi downstream at same datum. July 2, 1938 to Sept. 30, 1944, nonrecording gage at site 4.4 mi downstream. Oct. 1, 1944 to Oct. 11, 1960, nonrecording gage 0.35 mi upstream and Oct. 12, 1960 to Oct. 20, 1965, nonrecording gage 0.65 mi upstream at datum 5.90 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Cave Run Dam beginning December 1973 (station 03249498). High flow only regulated prior to December 1973 (Cave Run Dam under construction). Diversion above station from Cave Run Lake for Fish Hatchery; return flow of which enters Licking River below station.

AVERAGE DISCHARGE.--48 years (1938-86), 1,044 ft³/s, 17.14 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft³/s, Feb. 28, 1962; maximum gage height, 31.1 ft, Feb. 9, 1918 (ice jam), site and datum then in use; reverse flow at times, caused by backwater; minimum discharge unaffected by backwater, 0.7 ft³/s, Oct. 14, 1930; minimum gage height, 1.30 ft, Sept. 19, 1943, site then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,180 ft³/s, Dec. 5; gage height, 17.45 ft; minimum daily discharge, 37 ft³/s, May 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	231	251	190	208	3330	52	50	127	78	75	71
2	240	230	417	190	215	2980	53	50	129	86	75	72
3	238	234	3430	190	646	1850	52	50	127	95	75	73
4	237	232	3880	190	1620	1080	52	50	127	125	78	124
5	237	236	4180	190	2470	871	52	43	126	126	79	232
6	237	231	4150	190	2470	505	53	42	127	130	79	232
7	239	230	4120	190	2520	505	53	39	126	130	79	232
8	237	229	4090	190	2500	505	51	41	125	113	74	232
9	234	227	4060	190	2480	503	51	39	125	78	74	231
10	233	229	4040	163	2470	505	52	39	131	80	77	230
11	232	233	3340	96	2470	516	52	38	375	79	79	231
12	233	232	2610	96	2470	523	52	37	535	79	77	234
13	233	233	3330	96	2460	887	52	39	527	111	76	231
14	237	233	3690	96	2260	1640	52	109	524	659	74	230
15	238	233	3580	96	1630	2080	52	413	523	1200	74	230
16	238	245	3720	96	1090	2070	51	1040	523	945	74	141
17	237	239	3980	95	1140	2070	51	774	530	400	74	157
18	236	239	3970	96	1400	2070	51	592	372	126	74	165
19	237	239	3960	97	2800	2070	52	594	126	124	76	159
20	237	239	3920	99	3430	2070	51	408	123	127	77	231
21	240	238	3900	147	3430	1530	57	130	123	129	74	232
22	235	237	3870	530	3430	700	54	128	128	109	74	232
23	232	235	3820	975	3410	393	39	127	129	79	74	234
24	231	236	3550	975	3400	222	48	127	108	79	74	233
25	229	237	3340	975	3390	220	49	127	79	79	73	166
26	228	471	3340	975	3370	218	49	128	76	79	72	232
27	227	297	2740	975	3360	217	49	133	75	78	73	232
28	226	262	1390	975	3350	156	49	632	75	78	72	235
29	230	252	735	975	---	113	50	1170	77	80	72	234
30	233	251	398	978	---	111	50	760	76	79	71	234
31	232	---	190	648	---	80	---	126	---	77	71	---
TOTAL	7276	7390	95991	11965	65889	32590	1531	8075	6374	5837	2320	6002
MEAN	235	246	3096	386	2353	1051	51.0	260	212	188	74.8	200
MAX	243	471	4180	978	3430	3330	57	1170	535	1200	79	235
MIN	226	227	190	96	208	80	39	37	75	77	71	71

CAL YR 1985 TOTAL 374120 MEAN 1025 MAX 4180 MIN 49
WTR YR 1986 TOTAL 251240 MEAN 688 MAX 4180 MIN 37

03249500 LICKING RIVER AT FARMERS, KY--Continued

WATER-QUALITY RECORDS

LOCATION.--Temperature recorder 3.4 mi downstream from base gaging station and at auxiliay gage station.
PERIOD OF RECORD.--Water years 1949 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1949 to current year.
SUSPENDED SEDIMENT DISCHARGE: November 1960 to September 1967.
INSTRUMENTATION.--Temperature recorder since October 1953.
REMARKS.--Specific conductance measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES (Water years 1949-60, 1963-79, 1981 to current year): Maximum, 33.5°C, July 19, 1951; minimum, 0.0°C, on many days during winter periods.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.0°C, many days in Aug.; minimum, 3.5°C, many days in January, February.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.0	20.0	16.0	16.0	13.5	13.5	5.0	4.5	4.0	3.5	5.5	5.5
2	20.0	19.5	16.0	16.0	13.5	11.5	5.0	4.5	4.0	3.5	6.0	6.0
3	19.5	19.5	16.0	16.0	11.5	11.5	5.0	5.0	4.0	4.0	6.0	6.0
4	20.0	19.5	16.0	15.0	11.5	11.5	4.5	4.5	4.5	4.5	6.0	6.0
5	20.0	19.0	15.0	14.5	11.5	11.5	4.5	4.5	4.5	4.5	6.0	6.0
6	19.0	18.5	14.5	14.5	11.5	11.5	4.5	4.0	4.5	4.5	6.0	6.0
7	18.5	18.0	14.5	14.5	11.5	11.5	4.5	4.0	4.5	4.5	6.5	6.0
8	19.0	18.5	14.5	14.5	11.5	11.5	4.0	4.0	4.5	4.5	6.5	6.5
9	19.0	18.5	14.5	14.5	11.5	11.0	4.0	4.0	4.5	4.5	6.5	6.5
10	19.0	19.0	14.5	14.5	11.0	11.0	4.0	4.0	4.5	4.5	6.5	6.5
11	19.0	19.0	14.5	14.5	11.0	11.0	4.0	3.5	4.5	4.5	7.0	6.5
12	19.5	19.0	14.5	14.5	11.0	11.0	4.0	4.0	4.5	4.5	6.5	6.5
13	20.0	19.5	14.5	14.5	11.0	10.5	4.0	4.0	4.5	4.5	7.0	6.5
14	20.0	20.0	14.5	14.5	10.5	10.5	3.5	3.5	4.5	4.5	7.0	7.0
15	20.0	20.0	14.5	14.5	10.5	10.0	3.5	3.5	4.5	4.5	7.0	7.0
16	20.0	19.0	14.5	14.5	10.0	10.0	4.0	3.5	4.5	4.5	7.0	7.0
17	19.0	18.5	14.5	14.5	10.0	9.0	4.5	4.0	5.0	5.0	7.0	7.0
18	19.5	18.0	14.5	14.5	9.0	9.0	4.5	4.5	5.0	5.0	7.0	7.0
19	18.0	17.0	14.5	14.5	9.0	8.5	4.5	4.0	5.0	5.0	8.0	7.0
20	17.0	17.0	14.5	14.0	8.5	8.0	4.0	4.0	5.0	5.0	8.0	8.0
21	17.0	16.5	14.0	13.5	8.0	8.0	4.0	3.5	5.5	5.0	8.0	8.0
22	16.5	16.5	14.0	13.5	8.0	7.0	4.0	4.0	5.5	5.5	8.0	7.0
23	16.5	16.5	13.5	13.5	7.0	7.0	4.0	4.0	5.5	5.5	8.0	7.0
24	16.5	16.5	13.5	13.5	7.0	7.0	4.0	4.0	5.5	5.5	9.0	7.0
25	16.5	16.5	13.5	13.5	7.0	6.5	4.0	4.0	5.5	5.5	9.0	7.0
26	16.5	15.5	13.5	13.5	6.5	6.0	4.0	4.0	5.5	5.5	9.5	8.5
27	16.5	16.0	13.5	13.5	5.5	5.5	4.0	4.0	5.5	5.5	9.5	8.5
28	16.0	16.0	13.5	13.5	5.5	5.5	4.0	3.5	5.5	5.5	9.5	8.0
29	16.0	15.5	13.5	13.5	5.5	5.0	3.5	3.5	---	---	10.0	8.5
30	16.0	16.0	13.5	13.5	5.0	5.0	3.5	3.5	---	---	10.5	9.0
31	16.0	16.0	---	---	5.0	5.0	3.5	3.5	---	---	11.0	9.0

03249500 LICKING RIVER AT FARMERS, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	11.0	16.0	15.5	18.5	17.0	21.0	21.0	23.5	22.0	21.5	21.5
2	11.5	11.5	15.5	14.0	18.5	17.0	21.0	21.0	23.5	23.5	22.0	22.0
3	11.5	11.0	14.5	13.0	19.5	17.0	21.0	19.5	23.5	22.0	23.0	22.0
4	12.0	11.0	14.0	13.0	19.5	19.0	21.5	19.0	23.0	22.0	23.0	23.0
5	12.0	12.0	16.0	14.0	19.0	19.0	22.0	20.5	23.0	22.0	23.0	23.0
6	12.0	11.5	18.0	16.0	19.0	19.0	22.0	20.5	23.5	23.0	23.0	21.5
7	13.0	11.5	19.5	18.0	19.5	18.5	22.0	20.5	23.5	23.5	22.0	21.5
8	13.5	13.0	19.5	19.5	19.0	18.5	22.0	20.5	23.5	23.5	21.5	21.0
9	13.5	9.5	19.5	18.5	20.0	19.0	21.5	21.5	23.5	23.5	22.0	21.5
10	9.5	8.5	19.0	18.0	20.0	19.0	21.5	21.0	23.5	23.5	23.0	21.5
11	10.5	9.0	19.0	18.5	19.5	11.5	22.0	21.0	23.5	23.5	23.0	23.0
12	11.5	10.5	18.0	16.5	11.5	11.5	21.5	21.5	23.5	23.0	23.0	23.0
13	13.5	11.5	19.0	18.0	11.5	11.0	21.5	21.5	23.0	23.0	23.0	21.0
14	13.5	13.0	19.0	16.0	11.5	11.0	21.5	20.5	23.5	23.5	22.0	21.5
15	13.0	13.0	18.5	10.5	11.5	11.0	11.5	11.0	24.0	23.5	22.0	21.5
16	13.0	10.5	10.5	10.5	11.5	11.0	11.5	11.0	24.0	24.0	22.0	22.0
17	10.5	10.5	10.5	10.5	11.5	11.0	12.0	11.5	24.0	24.0	22.0	20.5
18	13.0	10.0	10.5	10.0	12.0	10.5	22.0	12.0	24.0	24.0	21.5	21.5
19	13.5	13.0	10.0	10.0	20.0	12.0	22.0	21.5	24.0	23.0	21.5	21.5
20	13.5	13.5	10.0	10.0	20.0	19.0	23.0	21.5	23.5	23.0	21.5	21.5
21	13.5	13.0	14.0	10.5	20.5	18.5	23.0	21.0	23.5	23.0	22.0	21.5
22	13.0	11.0	16.0	14.0	21.0	18.5	23.0	22.0	24.0	23.5	22.0	21.5
23	11.0	10.0	16.5	15.5	21.0	20.0	23.0	23.0	24.0	24.0	22.0	19.5
24	13.0	10.5	18.0	16.5	20.5	19.5	23.0	22.0	24.0	23.5	20.0	19.0
25	15.0	13.0	18.0	16.5	20.5	19.5	23.0	22.0	23.5	22.0	23.0	20.0
26	16.5	15.0	16.5	16.0	20.0	20.0	23.0	23.0	24.0	23.0	23.0	22.0
27	16.5	16.5	18.0	16.5	20.5	20.0	23.0	23.0	24.0	24.0	23.0	23.0
28	16.5	15.0	17.0	11.0	21.0	20.5	23.0	23.0	24.0	22.0	23.0	22.0
29	16.0	14.5	11.0	11.0	21.0	21.0	23.5	23.0	22.0	20.0	23.0	22.0
30	16.0	15.5	11.0	10.5	21.0	21.0	23.5	23.0	21.5	20.0	23.5	23.0
31	---	---	17.0	11.0	---	---	23.5	22.0	21.5	21.5	---	---

03250100 NORTH FORK TRIPLETT CREEK NEAR MOREHEAD, KY

LOCATION.--Lat 38°11'57", long 83°28'50", Rowan County, Hydrologic Unit 05100101, on right downstream wingwall of bridge on State Highway 32, 0.5 mi upstream from Pence Branch, 1.8 mi downstream from Big Brushy Creek, 2.8 mi northwest of Morehead, and at mile 6.1.

DRAINAGE AREA.--84.7 mi².

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 678.03 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 21, Dec. 15, 21-24, 28-30, Jan. 6-8, 10, 12-17, 28-29. Records good except for estimated daily discharges, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--19 years, 128 ft³/s, 20.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,550 ft³/s, May 1, 1983, gage height, 19.12 ft; maximum gage height, 20.15 ft, Apr. 22, 1972; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 14	1300	*2,650	*11.34				

No flow several days in Aug.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	36	171	30	45	86	41	44	72	7.8	.01	.17
2	1.9	75	111	28	45	79	39	43	89	707	.01	10
3	.46	336	95	28	64	80	36	36	60	132	.01	14
4	.64	401	90	27	196	77	33	31	43	54	.00	1.4
5	.90	426	88	27	285	77	30	28	44	31	.00	1.2
6	1.0	351	98	21	265	87	29	26	121	21	.00	.14
7	.46	215	87	19	583	86	28	26	228	12	.00	.06
8	1.2	182	75	17	312	73	26	36	160	7.1	.00	.18
9	.90	126	84	15	201	74	24	27	114	4.0	.01	.08
10	.40	137	53	14	154	104	22	21	114	3.3	1.5	.03
11	.40	426	135	14	137	242	20	80	265	5.6	25	.02
12	.35	573	398	13	126	194	19	297	297	7.9	23	47
13	.30	328	387	13	118	1210	18	482	204	14	14	7.6
14	.40	196	401	12	110	463	16	1190	114	11	8.5	2.6
15	4.5	121	226	11	97	264	15	380	71	10	7.6	.82
16	5.3	194	165	11	115	176	16	183	47	6.4	3.7	.37
17	1.2	509	124	13	1170	133	17	111	33	3.6	15	.28
18	.64	242	97	15	580	109	15	76	22	1.5	23	.22
19	.64	171	75	41	276	309	13	57	15	.46	13	.29
20	18	121	67	95	182	261	13	45	10	.21	27	.23
21	160	93	62	93	141	169	58	35	8.5	.15	11	.19
22	144	84	57	204	109	130	108	28	5.3	.08	5.3	.14
23	81	74	52	163	92	109	93	30	2.7	.11	3.0	.66
24	70	78	50	120	87	90	72	20	1.2	.04	1.6	1.1
25	68	47	46	103	81	74	62	13	.37	.02	.78	.19
26	55	601	42	92	92	66	56	11	.14	1.2	1.1	.07
27	48	1360	38	76	105	66	47	169	.05	1.3	2.6	89
28	43	942	36	78	95	59	45	147	.02	.02	6.2	65
29	38	516	34	60	---	53	53	877	.02	.01	1.6	31
30	37	280	32	53	---	48	47	276	.02	.01	.50	18
31	37	---	31	45	---	45	---	128	---	.01	.29	---
TOTAL	821.59	9341	3507	1551	5863	5093	1111	4953	2141.32	1042.82	195.31	292.04
MEAN	26.5	311	113	50.0	209	164	37.0	160	71.4	33.6	6.30	9.73
MAX	160	1360	401	204	1170	1210	108	1190	297	707	27	89
MIN	.30	36	31	11	45	45	13	11	.02	.01	.00	.02
CFSM	.31	3.67	1.33	.59	2.47	1.94	.44	1.89	.84	.40	.07	.11
IN	.36	4.10	1.54	.68	2.58	2.24	.49	2.18	.94	.46	.09	.13

CAL YR 1985 TOTAL 50457.75 MEAN 138 MAX 1360 MIN .10 CFSM 1.63 IN 22.16
WTR YR 1986 TOTAL 35912.08 MEAN 98.4 MAX 1360 MIN .00 CFSM 1.16 IN 15.77

03251000 NORTH FORK LICKING RIVER NEAR LEWISBURG, KY

LOCATION.--Lat 38°32'57", long 83°47'37", Mason County, Hydrologic Unit 05100101, on left bank at downstream side of bridge on State Highway 419, 1.2 mi west of Lewisburg, 1.3 mi downstream from Mill Creek, and at mile 50.1.

DRAINAGE AREA.--119 mi².

PERIOD OF RECORD.--August 1946 to current year.

REVISED RECORDS.--WSP 1173: 1947-48. WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 680 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 2, 1950, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 18-22., Jan. 6-16, Jan. 27 to Feb. 2 , Feb. 4-5, 11-16. Records good except for estimated daily discharges, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--40 years, 148 ft³/s, 16.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft³/s, Apr. 13, 1948, gage height, 20.7 ft, from floodmarks; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1938 reached a stage of 22.7 ft, discharge, 13,300 ft³/s, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage Height (ft)	Date	Time	Discharge (ft³/s)	Gage Height (ft)
Nov. 12	0830	*2,590	*8.69				

Minimum daily discharge 0.05, many days in August.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	5.7	204	24	24	114	32	15	19	4.4	.11	.05
2	1.1	5.9	168	22	30	99	29	12	13	1020	.09	.05
3	.88	222	126	21	36	92	26	9.5	9.3	213	.08	.05
4	.74	391	100	20	400	84	24	8.7	6.7	68	.07	.06
5	.68	359	88	19	540	75	22	7.6	5.9	31	.06	.18
6	.64	352	82	20	460	80	21	6.8	6.2	16	.06	.15
7	.60	148	72	18	1040	89	30	6.8	497	10	.06	.10
8	.55	99	64	16	404	72	25	9.1	388	6.3	.05	.07
9	.51	73	57	13	231	65	21	12	206	4.1	.05	.06
10	.48	52	50	12	171	63	17	8.9	131	2.6	.05	.05
11	.47	580	287	10	141	61	15	8.3	231	1.9	.06	.05
12	.44	1510	681	11	110	138	14	7.4	217	4.0	.06	.25
13	.42	517	414	12	97	1230	13	20	124	18	.05	.31
14	.50	295	446	11	96	555	12	246	55	14	.05	.24
15	1.6	155	210	9.0	96	271	14	422	36	9.6	.05	.17
16	3.1	616	150	7.0	100	180	15	110	23	6.1	.05	.11
17	3.3	606	124	9.5	1430	136	14	63	14	3.7	.05	.08
18	8.6	228	98	11	711	113	13	40	10	2.2	.05	.09
19	4.7	150	90	17	325	317	13	29	7.2	1.3	.05	.11
20	72	113	80	93	211	280	13	21	5.5	.75	.05	.11
21	236	88	70	118	163	148	35	17	4.0	1.0	.05	.10
22	89	74	60	143	131	116	49	14	3.4	.85	.05	.08
23	44	61	54	109	110	101	41	13	2.7	.64	.06	.06
24	27	51	49	70	102	86	27	10	2.7	.55	.07	.11
25	20	42	57	60	99	72	20	9.6	2.0	.47	.06	.19
26	16	85	73	63	117	64	17	6.6	1.2	.46	.06	.14
27	12	1190	45	58	135	58	16	7.2	.72	.42	.10	.15
28	10	1650	33	55	152	51	15	20	.62	.34	.11	.15
29	8.1	722	30	40	---	45	14	24	.52	.25	.08	.45
30	7.2	306	28	34	---	40	14	88	.41	.16	.06	1.0
31	6.2	---	25	27	---	36	---	38	---	.12	.06	---
TOTAL	577.47	10746.6	4115	1152.5	7662	4931	631	1309.5	2023.07	1442.21	1.96	4.77
MEAN	18.6	358	133	37.2	274	159	21.0	42.2	67.4	46.5	.06	.16
MAX	236	1650	681	143	1430	1230	49	422	497	1020	.11	1.0
MIN	.42	5.7	25	7.0	24	36	12	6.6	.41	.12	.05	.05
CFSM	.16	3.01	1.12	.31	2.30	1.34	.18	.35	.57	.39	.00	.00
IN	.18	3.36	1.29	.36	2.40	1.54	.20	.41	.63	.45	.00	.00

CAL YR 1985 TOTAL 48053.90 MEAN 132 MAX 1650 MIN .00 CFSM 1.11 IN 15.02
WTR YR 1986 TOTAL 34597.08 MEAN 94.8 MAX 1650 MIN .05 CFSM .80 IN 10.82

03251500 LICKING RIVER AT MCKINNEYSBURG, KY

LOCATION.--Lat 38°35'52", long 84°16'00", Pendleton County, Hydrologic Unit 05100101, on right bank at downstream side of highway bridge at McKinneysburg, 6.5 mi southeast of Falmouth, 9.0 mi upstream from Blanket Creek, 12.9 mi upstream from South Fork, and at mile 64.6.

DRAINAGE AREA.--2,326 mi².

PERIOD OF RECORD.--July 1924 to August 1926, October 1938 to current year. Monthly discharge only for October, November 1938, published in WSP 1305.

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 520.83 ft above National Geodetic Vertical Datum of 1929. July 23, 1924 to Aug. 9, 1926, nonrecording gage at same site, datum unknown. Nov. 18, 1938 to June 30, 1939, nonrecording gage at present site and datum. Oct. 1, 1949 to Sept. 30, 1957, auxiliary water-stage recorder 4.0 mi downstream.

REMARKS.--Estimated daily discharges: Jan. 6-17 20, 28-30. Records good except those for estimated daily discharges, which are fair. Flow regulated since December 1973 by Cave Run Lake (station 03249498). Specific conductance and temperature measurements made in conjunction with discharge measurements are publisheo in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--49 years (1924-25, 1938-86), 2,990 ft³/s, 17.46 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,100 ft³/s, Mar. 10, 1964, gage height, 50.26 ft; minimum, 3.8 ft³/s, Oct. 18, 19, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of 47.8 ft from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,200 ft³/s, Nov. 28, gage height, 20.84 ft; minimum, 93 ft³/s Aug. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	281	403	5400	840	1460	4800	709	371	1550	125	110	97
2	283	406	3040	609	1130	4610	657	371	722	3940	106	102
3	292	657	2220	558	718	4460	567	346	486	2960	103	102
4	282	2050	2880	544	1940	3780	508	313	400	2220	99	103
5	272	3230	4670	528	8600	2490	475	292	376	893	94	102
6	269	3210	5120	477	7520	1910	453	272	747	500	93	98
7	262	3510	5210	458	9530	1640	435	261	693	366	93	97
8	260	2250	5140	446	9240	1360	411	365	1080	296	93	187
9	259	1490	5040	426	7440	1300	391	330	1530	247	94	215
10	265	1180	4950	395	5470	1270	384	409	1100	222	99	212
11	267	2010	5410	351	4640	1530	369	490	883	253	102	218
12	266	9510	8440	313	4170	4100	344	387	1630	190	98	269
13	261	6430	8010	295	3930	11400	321	963	1680	189	98	259
14	265	4530	8430	284	3850	11300	305	3380	1550	202	106	277
15	271	2520	8340	276	3680	10200	311	4220	1250	178	110	302
16	279	3760	6940	251	3300	6810	327	5860	992	600	108	259
17	285	5510	5760	217	7980	5220	302	3430	842	1260	107	232
18	291	6040	5460	288	11900	4180	287	2120	831	1040	102	231
19	304	4100	5240	376	11100	4760	272	1490	796	629	104	196
20	517	2130	5030	561	7390	5910	283	1160	636	359	101	142
21	1430	1520	4870	760	6140	5200	794	1030	380	208	99	172
22	2980	1210	4760	1250	5740	4110	643	859	239	182	102	140
23	2910	1030	4710	1370	5270	2880	576	513	199	204	102	192
24	1210	913	4680	1840	4970	1950	839	396	183	179	102	230
25	744	820	4530	1930	4820	1540	726	361	173	157	102	224
26	615	1010	4050	1790	4780	1260	563	339	167	134	99	227
27	541	6430	3200	1680	4890	1160	482	368	157	118	99	358
28	481	13400	2600	1630	4910	1070	433	381	139	109	97	287
29	439	13700	2070	1610	---	998	402	449	125	106	95	283
30	428	10500	1590	1590	---	917	378	1240	119	103	95	389
31	411	---	1080	1560	---	773	---	2700	---	107	96	---
TOTAL	17920	115459	148870	25503	156508	114888	13947	35466	21655	18276	3108	6202
MEAN	578	3849	4802	823	5590	3706	465	1144	722	590	100	207
MAX	2980	13700	8440	1930	11900	11400	839	5860	1680	3940	110	389
MIN	259	403	1080	217	718	773	272	261	119	103	93	97

CAL YR 1985	TOTAL	956321	MEAN	2620	MAX	19300	MIN	176
WTR YR 1986	TOTAL	677802	MEAN	1857	MAX	13700	MIN	93

03252000 STONER CREEK AT PARIS, KY

LOCATION.--Lat 38°13'45", long 84°15'22", Bourbon County, Hydrologic Unit 05100102, on left bank 25 ft upstream from bridge on county road, 0.5 mi north of Paris, 1.5 mi downstream from Houston Creek, and at mile 79.2.

DRAINAGE AREA.--239 mi^2.

PERIOD OF RECORD.--April 1953 to current year. Monthly discharge only for April 1953, published in WSP 1725.

REVISED RECORDS.--WSP 1385: 1954. WSP 1705: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 770.43 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 23 to Jan. 9 and Jan. 11-15. Records good except for estimated daily discharges, which are poor. Specific conductance and temperature measurements made in conjunction with discharges, measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--33 years, 285 ft^3/s, 16.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft^3/s, Dec. 9, 1978, gage-height, 20.55 ft; minimum daily, 0.2 ft^3/s, several days in 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since about 1928, about 19.5 ft in winter of 1951, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	1800	*4,500	*10.22	Mar. 13	2000	4,350	10.03

Minimum daily discharge, 1.2 ft^3/s, Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	177	599	35	54	161	65	26	19	1.8	3.5	1.2
2	8.7	164	455	33	60	148	59	26	17	41	3.8	2.0
3	12	203	337	31	84	145	57	23	16	164	3.2	3.1
4	17	553	264	29	828	136	54	21	15	65	3.1	3.4
5	17	387	223	27	1040	126	49	24	14	30	3.6	3.9
6	14	229	196	26	806	121	49	22	18	20	2.9	2.8
7	15	171	163	25	1600	115	117	22	21	12	2.7	2.4
8	14	136	136	24	1130	100	92	29	22	9.4	3.0	6.4
9	14	111	120	23	661	88	58	27	15	7.5	2.7	5.5
10	14	90	106	22	456	87	46	34	17	9.3	2.8	5.9
11	11	78	127	22	371	128	42	27	15	7.9	3.6	6.9
12	11	103	1030	21	298	209	38	24	14	32	2.8	17
13	9.6	126	850	21	242	2890	33	27	12	159	2.4	7.6
14	12	124	1110	21	238	2410	31	146	13	398	2.4	15
15	42	105	660	20	231	1760	32	479	16	265	2.3	11
16	89	130	430	20	227	899	34	193	11	117	2.2	7.4
17	81	799	317	20	2050	539	33	95	7.7	64	2.3	5.3
18	69	432	245	22	1890	395	31	56	5.8	42	2.5	5.9
19	49	249	181	36	958	1050	28	40	4.0	32	2.3	6.0
20	54	173	155	62	764	1080	32	31	2.7	23	2.3	4.6
21	85	131	126	78	552	537	51	23	2.3	17	2.5	4.2
22	156	109	106	78	399	371	61	20	1.8	12	2.5	3.8
23	163	97	93	82	320	290	55	19	1.7	8.1	2.3	4.0
24	158	84	81	80	278	229	45	17	2.2	6.4	2.1	4.7
25	136	69	70	77	252	184	37	14	2.4	5.1	2.0	7.3
26	140	81	62	76	226	155	30	17	2.3	4.5	3.3	16
27	129	2890	56	73	220	131	28	31	2.3	3.4	6.0	14
28	111	2720	50	60	196	108	25	45	2.7	3.4	3.0	9.2
29	98	2110	45	53	---	101	25	41	2.1	3.6	2.1	7.3
30	119	995	41	54	---	88	24	28	1.4	3.2	1.5	5.7
31	194	---	38	53	---	74	---	22	---	3.8	1.3	---
TOTAL	2050.7	13826	8472	1304	16431	14855	1361	1649	296.4	1570.4	85.0	199.5
MEAN	66.2	461	273	42.1	587	479	45.4	53.2	9.88	50.7	2.74	6.65
MAX	194	2890	1110	82	2050	2890	117	479	22	398	6.0	17
MIN	8.4	69	38	20	54	74	24	14	1.4	1.8	1.3	1.2
CFSM	.28	1.93	1.14	.18	2.46	2.00	.19	.22	.04	.21	.01	.03
IN	.32	2.15	1.32	.20	2.56	2.31	.21	.26	.05	.24	.01	.03

CAL YR 1985 TOTAL 75113.0 MEAN 206 MAX 2890 MIN 2.2 CFSM .86 IN 11.69
WTR YR 1986 TOTAL 62100.0 MEAN 170 MAX 2890 MIN 1.2 CFSM .71 IN 9.67

BEST COPY AVAILABLE

03252500 SOUTH FORK LICKING RIVER AT CYNTHIANA, KY

LOCATION.--Lat 38°23'27", long 84°18'11", Harrison County, Hydrologic Unit 05100102, on left bank at downstream side of bridge on State Highway 356 and 36, at Cynthiana, 0.3 mi downstream from Grays Run, in pool formed by old milldam 2.6 mi downstream, and at mile 49.1.

DRAINAGE AREA.--621 mi².

PERIOD OF RECORD.--April 1938 to current year. Gage-height records collected in this vicinity since 1917 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1113: 1943(M). WSP 1505: 1945. WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 688.52 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 28, 1952, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 3-6, Dec. 24 to Jan. 19 and Jan. 24 to Feb. 9. Records good except those for estimated daily discharges, which are fair. Small diversion by Cynthiana municipal water plant.

AVERAGE DISCHARGE.--48 years, 754 ft³/s, 16.49 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,300 ft³/s, Apr. 13, 1948, gage height, 23.32 ft; minimum daily, 0.3 ft³/s, Oct. 23-26, Nov. 10-18, 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 13	2400	*8,180	*11.94				

Minimum daily discharge, 2.1 ft³/s, Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	169	1520	111	87	387	223	72	72	6.9	7.3	2.3
2	5.1	206	1020	107	86	349	211	73	67	7.5	6.8	2.4
3	5.0	266	774	100	87	337	197	67	65	329	6.2	2.5
4	4.9	524	600	97	240	326	189	61	37	380	5.7	2.6
5	4.8	886	502	93	1500	309	179	55	37	307	5.2	2.7
6	4.7	600	439	90	1400	289	171	49	44	161	4.7	2.7
7	5.6	418	386	86	1780	279	168	46	89	100	4.4	2.5
8	7.1	318	335	84	2300	259	233	52	125	72	4.1	2.4
9	8.6	273	300	81	1500	234	209	22	68	36	4.1	2.4
10	9.0	223	266	79	1110	220	186	14	46	15	4.2	2.4
11	9.1	235	814	78	878	225	165	14	38	13	4.3	2.4
12	8.7	1070	1110	76	716	413	151	23	34	12	4.4	3.4
13	8.4	800	2110	75	565	4400	135	71	27	11	4.6	2.9
14	8.0	432	2260	74	508	6480	112	194	22	14	4.2	2.8
15	7.9	319	1800	73	525	3510	114	563	20	286	3.7	2.7
16	7.7	433	1100	73	497	2200	111	708	18	269	3.3	2.7
17	7.4	1070	782	73	2720	1350	108	349	15	192	3.0	2.8
18	7.2	1370	600	73	5110	961	106	225	14	134	2.8	3.0
19	8.5	790	439	73	2640	1560	104	165	14	89	2.6	3.2
20	11	525	386	81	1580	2690	111	129	14	61	2.4	4.2
21	50	398	342	111	1230	1420	138	100	13	40	2.3	5.1
22	190	327	286	158	912	946	171	81	13	28	2.3	6.0
23	222	273	300	158	715	744	175	67	12	20	2.3	5.9
24	283	254	250	140	604	604	163	60	12	15	2.2	6.3
25	257	229	215	123	541	499	145	51	11	13	2.2	6.4
26	241	218	179	115	488	428	124	56	10	12	2.1	6.4
27	228	2150	165	108	461	375	104	61	9.3	11	2.3	7.3
28	200	6620	150	101	439	335	91	68	8.6	9.9	2.4	7.6
29	185	5600	138	98	---	303	85	83	8.0	9.2	2.3	7.2
30	188	2750	128	94	---	272	76	93	7.4	8.5	2.3	7.0
31	196	---	120	89	---	240	---	84	---	7.9	2.3	---
TOTAL	2383.9	29746	19816	2972	31219	32944	4455	3756	970.3	2669.9	113.0	120.2
MEAN	76.9	992	639	95.9	1115	1063	149	121	32.3	86.1	3.65	4.01
MAX	283	6620	2260	158	5110	6480	233	708	125	380	7.3	7.6
MIN	4.7	169	120	73	86	220	76	14	7.4	6.9	2.1	2.3
CFSM	.12	1.60	1.03	.15	1.80	1.71	.24	.19	.05	.14	.01	.01
IN	.14	1.78	1.19	.18	1.87	1.97	.27	.22	.06	.16	.01	.01

CAL YR 1985	TOTAL	196113.7	MEAN	537	MAX	7820	MIN	4.7	CFSM .86	IN	11.75
WTR YR 1986	TOTAL	131165.3	MEAN	359	MAX	6620	MIN	2.1	CFSM .58	IN	7.86

03253500 LICKING RIVER AT CATAWBA, KY

LOCATION.--Lat 38°42'37", long 84°18'39", Pendleton County, Hydrologic Unit 05100101, on left bank 1 mi southeast of Catawba, 1.5 mi upstream from Kincaid Creek, 2.3 mi north of Falmouth, and at mile 48.0.

DRAINAGE AREA.--3,300 mi^2.

PERIOD OF RECORD.--January 1914 to July 1920 (January 1914 to July 1915 and October 1917 to July 1920, gage heights only), July 1928 to current year. Published as "at Falmouth" 1914-16. Gage-height records collected in this vicinity since 1887 are published in reports of the National Weather Service.

REVISED RECORDS.--WSP 853: 1937. WSP 1003: 1943. WSP 1385: 1942. WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 500.01 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Jan. 1, 1914 to July 31, 1916, nonrecording gage at site 3.8 mi upstream at datum 12.2 ft higher. July 14, 1916 to July 5, 1920, nonrecording gage at site 1.4 mi downstream at present datum.

REMARKS.--Estimated daily discharges: Jan. 9-12, 14-17 and Jan. to Feb. 1, 15-16. Records good except for estimated daily discharges, which are fair. Flow regulated since December 1973 by Cave Run Lake (station 03249498). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--60 years (1915-17, 1928-86), 4,097 ft^3/s, 16.86 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,000 ft^3/s, Mar. 10, 1964, gage height, 52.60 ft; minimum, 2.5 ft^3/s, Aug. 5, Oct. 14, 18, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,400 ft^3/s, Nov. 28, gage height, 21.09 ft; minimum daily discharge, 82 ft^3/s, Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	263	520	8130	1130	1570	4990	1020	482	1900	156	110	100
2	266	514	4710	938	1440	4780	943	467	902	5710	112	104
3	270	645	3570	807	1040	4610	852	457	621	3310	103	108
4	274	2560	3450	779	2650	4110	766	426	481	2740	97	108
5	256	3600	4970	751	13900	3060	712	391	439	1520	91	108
6	252	3860	5330	677	10500	2360	671	379	754	886	85	104
7	243	3910	5400	704	13300	2120	639	369	1290	590	83	98
8	240	2800	5300	640	13200	1700	605	392	1230	439	82	123
9	235	1900	5160	629	10200	1590	586	457	1710	349	85	281
10	237	1480	5020	587	6950	1560	611	390	1320	297	95	286
11	243	1810	5390	573	5630	2280	578	581	958	300	112	291
12	246	15500	9480	554	4960	4640	530	464	1380	249	105	341
13	244	8710	9760	524	4520	20200	489	549	1760	286	97	346
14	247	5490	10300	456	4240	18600	461	3070	1530	308	102	344
15	253	3770	10500	424	4150	15500	457	4190	1290	252	114	374
16	256	7930	8490	394	3940	9720	464	5960	1010	285	120	365
17	260	7490	6670	412	10200	6870	457	4290	839	1360	119	318
18	269	7120	6010	419	17600	5250	427	2680	766	1350	113	309
19	285	5540	5620	628	15900	5340	411	1870	799	890	107	302
20	558	3160	5290	1340	9880	7730	416	1370	666	580	108	219
21	2050	2240	5000	1080	7400	7080	814	1170	463	352	103	194
22	2710	1750	4830	1570	6680	5220	1150	1020	268	233	101	208
23	3010	1470	4840	1700	5900	3890	866	706	192	231	110	189
24	1490	1290	4780	2030	5450	2890	972	503	170	215	108	301
25	1110	1160	4550	2280	5200	2320	977	443	159	186	107	305
26	869	1190	4130	2110	5080	1880	790	417	150	164	108	295
27	737	9170	3490	1960	5170	1670	677	458	144	138	109	371
28	635	20700	2960	1770	5150	1520	595	538	130	120	104	427
29	557	21200	2480	1660	---	1380	544	513	113	110	102	347
30	529	15600	1940	1620	---	1280	510	881	99	105	97	395
31	517	---	1460	1610	---	1140	---	2550	---	101	97	---
TOTAL	19611	164079	169010	32756	201800	157280	19990	38433	23533	23812	3186	7661
MEAN	633	5469	5452	1057	7207	5074	666	1240	784	768	103	255
MAX	3010	21200	10500	2280	17600	20200	1150	5960	1900	5710	120	427
MIN	235	514	1460	394	1040	1140	411	369	99	101	82	98

CAL YR 1985 TOTAL 1203730 MEAN 3298 MAX 29500 MIN 183
WTR YR 1986 TOTAL 861151 MEAN 2359 MAX 21200 MIN 82

03254000 LICKING RIVER AT BUTLER, KY
(National stream-quality accounting network)

WATER-QUALITY RECORDS

LOCATION.--Lat 38°47'22", long 84°21'05", Pendleton County, Hydrologic Unit 05100101, at bridge on U.S. Highway 27, 0.4 mi downstream from Flour Creek, 1.0 mi east of Butler, and at mile 36.7.
DRAINAGE AREA.--3,375 mi^2.
PERIOD OF RECORD.--Water years 1950, 1975 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1949 to September 1950, October 1974 to July 1981.
WATER TEMPERATURES: October 1949 to September 1951, October 1974 to July 1981.
REMARKS.--Flow regulated by Cave Run Lake. Records of daily discharge are published for gaging station at Catawba (station 03253500) 11.3 mi upstream, drainage area, 3,300 mi^2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (NTU)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 1985											
06...	1030	4340	12.0	410	8.00	8.4	80	742	45	1400	2800
FEB 1986											
03...	1300	1090	5.0	330	8.10	13.0	104	744	5.6	--	--
MAY											
07...	1000	321	21.0	350	8.00	6.1	70	743	7.0	K15	980
AUG											
26...	1100	97	26.0	275	7.70	5.5	69	745	17	37	940

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV 1985											
06...	170	33	55	8.7	15	4.1	141	170	140	38	23
FEB 1986											
03...	130	52	39	8.5	13	2.3	81	--	--	44	23
MAY											
07...	150	38	45	10	8.5	2.5	116	--	--	46	12
AUG											
26...	110	33	31	7.5	11	3.1	74	91	75	34	20

03254000 LICKING RIVER AT BUTLER, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)
NOV 1985 06...	0.2	5.4	254	0.76	0.04	0.7	0.30	0.11	30	1	39
FEB 1986 03...	<0.1	4.4	183	0.69	0.04	0.6	0.05	0.03	10	<1	40
MAY 07...	0.1	0.1	205	0.20	0.03	0.7	0.08	0.03	20	<1	31
AUG 26...	0.1	1.3	154	0.12	<0.01	0.4	0.07	0.05	--	--	--

DATE	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)
NOV 1985 06...	1	1	<1	<3	5	9	3	5	3	0.1
FEB 1986 03...	<0.5	1	<1	<3	1	25	1	7	8	<0.1
MAY 07...	<0.5	<1	<1	<3	5	8	<1	7	3	<0.1
AUG 26...	--	--	--	--	--	--	--	--	--	--

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1985 06...	<10	2	<1	<1	170	<6	4	120	1410	100
FEB 1986 03...	<10	<1	<1	<1	200	<6	6	8	24	100
MAY 07...	<10	2	<1	<1	160	<6	9	14	12	100
AUG 26...	--	--	--	--	--	--	--	22	5.8	100

OHIO RIVER MAIN STEM

03277200 OHIO RIVER AT MARKLAND DAM, KY

LOCATION.--Lat 38°46'29", long 84°57'52", Gallatin County, Hydrologic Unit 05090203, at left end of Markland Dam, 0.4 mi upstream from Stephens Creek, 3.4 mi west of Warsaw, and at mile 531.5.

DRAINAGE AREA.--83,170 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1970 to current year.

GAGE.--Gate opening and water-stage recorders on left bank. Turbine recorders in powerplant on right bank. Datum of headwater gage 0.5 mi upstream is 443 ft Ohio River datum. Datum of tailwater gage 0.4 mi downstream is 35 ft lower.

REMARKS.--No estimated daily discharge. Records poor. Daily discharge computed from head, gate openings, lockages, and turbine flows. Flow regulated by Ohio River system of locks, dam, and reservoirs upstream from station.

AVERAGE DISCHARGE.--16 years, 119,200 ft^3/s, 19.46 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 542,000 ft^3/s, Mar. 17, 1978, maximum headwater gage height, 21.48 ft, Dec. 13, 1978, maximum tailwater gage height, 55.25 ft, Dec. 13, 1978; minimum daily discharge, 4,320 ft^3/s, Sept. 23, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 26, 1937, reached a stage of 76.1 ft (tailwater gage).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 440,000 ft^3/s, Feb. 9, maximum headwater gage height, 13.80 ft Dec. 2, maximum tailwater gage height, 47.43 ft, Dec. 2; minimum daily, 8,700 ft^3/s, Oct. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17400	11200	413000	41200	112000	177000	55100	54600	68500	77400	20900	12900
2	17400	19400	422000	44000	100000	157000	54600	46800	51200	139000	23500	14300
3	17400	36800	408000	41100	106000	137000	55900	49300	42500	175000	22700	15300
4	17400	63900	370000	41800	174000	129000	41700	38800	20300	190000	17200	15000
5	16700	161000	323000	49300	257000	102000	37500	43000	31600	172000	23300	19100
6	14000	270000	271000	45000	334000	95600	42700	32300	45400	155000	21800	24600
7	19700	333000	220000	38600	399000	96500	43300	40400	62200	105000	16700	17800
8	31000	339000	193000	53800	431000	99800	45800	68300	98000	65300	26200	24700
9	13900	306000	176000	38000	440000	92600	54100	73100	102000	40900	20600	14400
10	8700	292000	156000	38400	436000	86200	45500	57000	101000	73400	22900	11100
11	14300	227000	154000	33600	352000	91900	52800	56000	99900	72400	25300	25500
12	15700	199000	193000	37100	300000	137000	53300	37900	107000	95800	37800	28700
13	15700	237000	211000	43600	229000	264000	44000	52700	111000	127000	27700	19900
14	15700	231000	260000	36100	188000	283000	40800	77900	125000	125000	21800	16700
15	12900	241000	302000	35400	161000	288000	51000	105000	129000	118000	21800	22200
16	16200	296000	316000	32000	141000	271000	47300	83800	118000	110000	22600	21400
17	19400	326000	281000	33500	146000	317000	50600	72000	98100	88900	21800	17000
18	14100	302000	227000	28100	196000	310000	59300	66300	88900	80400	23600	9600
19	8700	331000	177000	38900	269000	322000	70600	45300	96300	76400	27400	17800
20	61300	341000	149000	61800	312000	337000	78000	52400	95500	66100	24700	22800
21	69400	260000	120000	86000	331000	257000	86800	84500	80400	58600	21800	17800
22	65000	190000	98600	128000	329000	206000	89100	97500	73600	72100	23700	22600
23	59600	167000	96600	164000	313000	172000	86900	102000	55100	83900	22300	16900
24	44600	158000	82100	194000	331000	152000	96100	97300	53000	83100	18900	24400
25	43100	162000	67200	197000	259000	126000	98600	79100	47700	79500	29200	58800
26	26500	160000	70100	192000	234000	102000	95300	59500	44400	68300	18800	32800
27	23100	183000	72700	174000	207000	85700	85400	59000	17900	65000	15800	60500
28	36600	329000	70100	154000	189000	81700	65500	65600	42500	46100	23700	64100
29	24800	356000	55000	136000	---	68700	47500	67000	42200	47600	14500	79300
30	27400	390000	56700	110000	---	69700	59100	59800	49800	50100	11800	87700
31	14300	---	47800	128000	---	61700	---	66900	---	29400	14000	---
TOTAL	802000	6918300	6058900	2474300	7276000	5175100	1834700	1991100	2198000	2836700	684800	835700
MEAN	25870	230600	195400	79820	259900	166900	61160	64230	73270	91510	22090	27860
MAX	69400	390000	422000	197000	440000	337000	98600	105000	129000	190000	37800	87700
MIN	8700	11200	47800	28100	100000	61700	37500	32300	17900	29400	11800	9600

CAL YR 1985 TOTAL 39975260 MEAN 109500 MAX 422000 MIN 6480
WTR YR 1986 TOTAL 39085600 MEAN 107100 MAX 440000 MIN 8700

03277200 OHIO RIVER AT MARKLAND DAM, KY--Continued
(National stream-quality accounting and radiochemical network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-70, 1974 to September 1986 (discontinued).
PERIOD OF DAILY RECORDS.--
SPECIFIC CONDUCTANCE: Water years 1960-70, 1974 to September 1986 (discontinued).
WATER TEMPERATURES: Water years 1960-70, 1974 to September 1986 (discontinued).
COOPERATION.--Samples for conductance and temperature are collected by U.S. Army Corps of Engineers.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (Water years 1960-70, 1974 to current year): Maximum daily, 810 microsiemens, Oct. 21, 1962; minimum daily, 165 microsiemens, Jan. 2, 1976.
WATER TEMPERATURES (Water years 1960-70, 1974 to current year): Maximum daily, 31.0°C July 14, 1962; minimum daily, 0.0°C, on many days during winter months.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 572 microsiemens, Nov. 1; minimum daily, 191 microsiemens, July 5.
WATER TEMPERATURES: Maximum daily, 30.0°C, Aug. 5; minimum daily, 0.5°C, Feb. 10, 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (NTU)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 1985											
05...	1135	103000	16.0	530	7.90	7.0	73	742	10	K330	K18
FEB 1986											
04...	1145	163000	4.0	360	8.00	12.1	95	739	30	180	150
MAY											
06...	1100	19000	18.0	440	7.30	9.4	102	745	4.0	K15	K28
AUG											
25...	1100	28600	28.0	400	7.60	4.6	60	748	7.5	K6	29

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV 1985											
05...	160	83	42	13	39	3.8	76	93	76	100	49
FEB 1986											
04...	130	74	35	11	19	2.2	59	--	--	71	26
MAY											
06...	160	100	42	13	23	2.4	55	66	54	100	31
AUG											
25...	150	80	40	11	25	3 4	64	79	65	92	29

03277200 OHIO RIVER AT MARKLAND DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)
NOV 1985 05...	0.3	2.7	316	--	--	0.8	0.16	0.11	30	1	61
FEB 1986 04...	0.1	6.2	207	1.60	0.22	0.9	0.09	0.03	20	<1	43
MAY 06...	0.2	1.6	264	1.20	0.06	0.6	0.06	0.02	20	<1	49
AUG 25...	0.2	0.6	246	1.20	0.02	0.5	0.08	0.05	--	--	--

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
NOV 1985 05...	<0.5	<1	<1	<3	7	9	9	12	14	0.1
FEB 1986 04...	<0.5	3	<1	<3	2	17	<1	9	60	<0.1
MAY 06...	<0.5	2	<1	<3	3	7	2	13	5	<0.1
AUG 25...	--	--	--	--	--	--	--	--	--	--

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1985 05...	<10	6	<1	<1	280	<6	10	26	7230	100
FEB 1986 04...	<10	4	<1	<1	240	<6	13	63	27700	100
MAY 06...	<10	11	<1	<1	320	<6	24	5	257	100
AUG 25...	--	--	--	--	--	--	--	11	849	100

03277200 OHIO RIVER AT MARKLAND DAM, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	490	572	231	---	283	331	---	456	---	---	355	381
2	500	550	---	---	283	---	316	445	340	320	355	390
3	495	550	---	---	360	322	321	440	---	---	355	395
4	500	550	226	275	322	322	321	435	---	---	370	385
5	---	530	236	389	---	326	321	424	---	191	370	410
6	---	495	236	374	---	326	331	440	---	---	370	395
7	---	462	264	389	---	316	331	419	---	270	385	415
8	---	462	264	390	---	316	353	419	380	321	381	405
9	---	390	---	---	---	352	358	413	370	279	381	395
10	---	319	264	---	346	326	364	403	370	292	385	390
11	---	330	275	---	312	326	353	---	---	300	395	385
12	---	330	294	360	---	352	342	376	380	310	401	375
13	---	300	280	---	230	362	348	376	390	321	381	385
14	---	283	280	331	232	352	---	355	380	300	381	385
15	---	278	280	331	---	342	---	344	410	310	390	425
16	---	283	---	331	---	342	349	355	410	355	390	425
17	512	300	---	---	267	342	349	350	420	339	401	385
18	506	305	286	---	283	326	362	355	440	351	390	385
19	500	294	286	341	269	326	373	350	430	347	390	385
20	---	294	280	---	278	316	373	360	---	332	390	385
21	---	294	280	---	240	286	396	334	---	381	401	405
22	550	300	280	437	---	306	401	329	410	363	399	400
23	500	300	294	---	250	306	384	323	381	355	390	390
24	473	300	302	403	274	296	379	---	399	347	410	390
25	495	---	---	331	322	306	390	---	390	355	410	405
26	---	---	---	403	278	296	401	329	380	351	399	405
27	495	275	---	---	331	306	407	320	390	355	395	430
28	495	275	---	---	341	---	435	300	---	363	390	440
29	534	253	---	331	---	---	---	---	340	370	399	---
30	561	264	330	341	---	---	445	---	390	363	390	---
31	561	---	352	307	---	---	---	---	---	---	390	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	17.5	10.5	---	3.0	4.0	---	15.5	---	---	29.0	26.0
2	20.5	17.0	---	---	3.0	---	12.0	16.5	23.0	27.0	29.0	26.0
3	21.0	17.0	---	---	3.0	4.0	13.0	17.0	---	---	28.0	25.5
4	21.0	15.0	9.0	2.0	3.0	4.0	13.5	17.0	---	---	29.0	25.5
5	---	15.0	8.5	1.5	---	5.5	13.0	18.0	---	26.0	30.0	25.0
6	---	15.5	8.5	3.0	---	5.5	13.5	18.0	---	---	28.0	25.0
7	---	15.5	8.5	3.0	---	5.0	14.0	18.0	---	26.5	28.0	24.5
8	---	15.5	8.0	2.0	---	5.0	14.5	18.5	24.5	26.5	28.0	25.0
9	---	15.0	---	---	---	5.0	14.0	19.5	25.0	26.5	28.0	25.0
10	---	14.5	8.0	---	.5	5.5	14.0	20.0	25.0	26.5	27.0	25.0
11	---	13.5	8.0	---	.5	5.5	14.5	---	---	26.5	27.0	25.0
12	---	14.5	8.0	3.0	---	6.0	14.5	20.0	24.0	26.5	26.5	24.0
13	---	13.5	7 0	---	3.5	6.0	14.5	20.0	21.5	26.5	27.0	24.0
14	---	14.0	6.5	---	3.0	6.0	---	20.0	22.0	26.0	27.0	24.5
15	---	13.5	6.0	2.0	---	6.0	---	20.5	28.0	26.0	27.0	24.0
16	---	13.5	---	3.0	---	8.0	14.0	20.5	23.5	26.5	27.0	24.0
17	20.0	13.5	---	---	3.5	9.0	14.5	21.0	24.0	26.5	27.0	24.0
18	20.0	13.5	5.5	---	3.5	8.5	14.5	21.0	25.0	26.5	28.0	24.0
19	20.0	14.0	5.0	1.5	3.5	8.0	14.5	21.0	25.5	26.5	28.0	24.0
20	---	13.0	4.5	---	3.5	9.5	14.5	20.5	---	26.5	27.0	24.0
21	---	12.0	4.5	---	3.0	8.0	14.5	21.0	---	27.0	28.0	24.0
22	19.0	12.0	4.0	2.0	---	8.0	14.5	20.5	26.5	27.0	28.0	24.0
23	19.0	11.5	3.0	---	3.0	8.5	14.5	20.5	26.5	27.0	26 5	24.0
24	19.0	11.5	2.0	3.5	5.0	8.5	14.5	---	26.5	27.0	26.5	24.0
25	18.5	---	---	2.0	5.0	10.0	15.0	---	26.5	27.0	27.0	24.0
26	---	---	---	4.0	4.5	9.5	15.5	20.5	26.5	26.5	27.0	24.5
27	18.5	11.0	---	---	4.0	9.5	16.5	21.0	26.5	27.0	26.5	25.0
28	18.0	11.0	---	---	4.0	---	16.0	23.0	---	29.0	26.5	25.5
29	18.0	10.5	---	2.0	---	---	---	---	27.0	29.0	26.0	---
30	17.5	10.5	2.0	1.5	---	---	15.5	---	26.5	29.0	26.0	---
31	17.5	---	2.0	3.0	---	---	---	---	---	---	25.5	---

03277450 CARR FORK NEAR SASSAFRAS, KY

LOCATION.--Lat 37°13'52", long 83°02'10", Knott County, Hydrologic Unit 05100201, on left bank 0.3 mi downstream from Sassafras Creek, 0.5 mi downstream from Carr Fork Dam, 0.6 mi upstream from Rowdy Hollow, 1.3 mi northeast of Sassafras, and at mile 8.3.

DRAINAGE AREA.--60.6 mi².

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 940.00 ft above National Geodetic Vertical Datum of 1929. Prior to July 27, 1966, nonrecording gage at site 0.3 mi upstream at datum 6.39 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Carr Fork Lake beginning January 1976 (station 03277446). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--23 years, 75.5 ft³/s, 16.92 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,390 ft³/s, Mar. 7, 1967, gage height, 19.24 ft, from floodmark; no flow at times in several years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1963 reached a stage of 17.82 ft, from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 21	1130	*717	*10.06				

Minimum discharge, 1.9 ft³/s, Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	43	283	27	88	155	8.3	6.1	6.7	4.8	4.4	63
2	42	43	305	27	82	82	8.1	6.1	6.7	5.3	4.4	137
3	44	46	422	26	115	95	8.1	6.0	6.7	4.8	4.4	162
4	42	79	416	21	293	105	8.1	6.1	6.8	4.7	4.4	162
5	43	254	294	12	338	75	7.5	6.3	6.5	4.7	4.4	124
6	42	335	122	12	194	54	6.7	6.3	6.6	4.7	5.1	46
7	41	323	71	12	233	53	6.7	6.4	6.5	4.7	5.8	22
8	41	222	47	11	190	52	6.6	6.7	12	4.7	6.0	5.4
9	41	149	46	12	111	52	6.7	6.7	7.0	5.4	5.7	3.5
10	42	102	28	12	86	52	6.6	6.7	5.9	5.9	6.2	3.5
11	44	56	11	12	84	54	6.7	7.2	5.9	5.0	6.0	3.7
12	42	42	11	12	65	63	6.3	7.3	5.7	4.8	5.7	4.5
13	42	50	84	12	54	74	6.0	9.6	4.8	6.3	5.7	3.9
14	42	57	140	12	53	74	6.0	9.7	4.6	5.2	5.6	3.9
15	43	57	141	12	53	75	6.0	11	4.4	4.2	5.5	25
16	49	57	141	14	57	75	6.0	9.7	4.4	5.5	6.3	43
17	53	57	140	15	188	75	6.0	9.7	4.5	9.0	5.8	42
18	53	49	141	15	334	92	6.0	8.8	4.7	11	5.0	42
19	53	44	73	19	378	123	6.0	8.3	5.5	11	5.6	43
20	53	64	15	28	417	54	6.1	7.8	5.5	9.1	8.0	44
21	71	87	15	50	576	11	6.4	7.6	5.3	6.1	6.2	42
22	91	87	15	74	557	11	6.1	7.3	5.2	4.4	5.8	43
23	102	86	15	88	288	10	6.0	7.4	4.7	4.4	5.9	49
24	102	70	18	85	286	10	6.0	7.3	4.2	4.4	6.2	117
25	102	45	24	79	283	9.9	6.0	7.3	4.1	4.4	6.3	161
26	62	33	27	66	187	8.4	6.0	7.2	4.2	4.4	7.1	159
27	41	167	27	66	138	8.9	6.0	7.4	4.2	5.1	8.7	83
28	42	193	27	67	171	8.5	6.3	7.1	4.2	4.4	9.0	38
29	44	331	27	75	---	8.4	6.2	7.0	4.3	4.4	8.6	28
30	43	407	27	83	---	8.4	6.0	6.9	4.6	4.4	8.4	21
31	43	---	27	84	---	8.3	---	6.8	---	4.4	8.3	---
TOTAL	1638	3635	3180	1140	5899	1636.8	195.5	231.8	166.4	171.6	190.5	1724.4
MEAN	52.8	121	103	36.8	211	52.8	6.52	7.48	5.55	5.54	6.15	57.5
MAX	102	407	422	88	576	155	8.3	11	12	11	9.0	162
MIN	41	33	11	11	53	8.3	6.0	6.0	4.1	4.2	4.4	3.5
CFSM	.87	2.00	1.70	.61	3.48	.87	.11	.12	.09	.09	.10	.95
IN	1.01	2.23	1.95	.70	3.62	1.00	.12	.14	.10	.11	.12	1.06

CAL YR 1985 TOTAL 22371.7 MEAN 61.3 MAX 429 MIN 5.6 CFSM 1.01 IN 13.73
WTR YR 1986 TOTAL 19809.0 MEAN 54.3 MAX 576 MIN 3.5 CFSM .90 IN 12.16

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03277500 NORTH FORK KENTUCKY RIVER AT HAZARD, KY

LOCATION.--Lat 37°14'48", long 83°10'55", Perry County, Hydrologic Unit 05100201, on right bank 300 ft upstream from the Woodland Park bridge in intake tower of the Hazard Water Plant on State Highway 15 at eastern limits of Hazard, 450 ft upstream from city waterworks dam, 4.0 mi upstream from Lotts Creek, and at mile 361.0.

DRAINAGE AREA.--466 mi².

PERIOD OF RECORD.--January 1940 to current year. Gage-height records collected in the vicinity since 1925 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 953: 1940. WSP 1385: 1942-48, 1949(M), 1950-51, 1953, drainage area. WSP 1505: 1951.

GAGE.--Water-stage recorder. Datum of gage is 839.76 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 25, 1965, nonrecording gage at site 300 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 19-22, 26-29, Jan. 10-15, 28, Apr. 17 to May 6 and Jul. 31 to Aug. 10. Records good except for estimated daily discharges, which are poor. Small diversion by city of Hazard waterworks and electric plant above station. Flow regulated by Carr Fork Lake beginning January 1976 (station 03277446). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--46 years, 575 ft³/s, 16.76 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,800 ft³/s, Jan. 29, 1957, gage height, 37.54 ft, from floodmark, from rating curve extended above 20,000 ft³/s, on basis of contracted-opening measurement of peak flow; minimum not determined; minimum gage height observed, 3.20 ft, June 28, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1927, reached a stage of about 34 ft, from information by local residents, National Weather Service gage readings, and relation of 1927 and 1939 floods. Flood of Feb. 3, 1939, reached a stage of 29.95 ft, from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 29	0200	*13,600	*16.08	Feb. 18	0100	12,600	15.37

Minimum daily discharge, 17 ft³/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	82	1430	208	577	1230	276	110	194	69	30	885
2	137	90	1030	218	660	1030	263	100	157	69	26	789
3	191	118	983	227	1460	949	243	90	197	101	23	583
4	170	595	902	227	2640	866	226	79	151	110	21	479
5	137	2330	815	203	1800	781	213	68	152	70	19	530
6	118	1870	568	185	1510	704	203	60	331	58	18	287
7	105	1140	461	166	2410	667	227	54	333	52	17	178
8	90	778	375	132	1670	593	216	58	404	47	24	115
9	85	532	338	112	1160	563	214	68	613	47	19	75
10	79	428	302	100	933	554	205	52	501	368	18	61
11	76	309	255	98	844	655	193	44	372	424	70	55
12	76	241	283	92	704	678	188	138	275	359	234	87
13	76	213	726	90	600	723	172	572	211	246	89	93
14	78	205	1110	87	581	788	161	768	167	448	53	70
15	88	198	914	84	592	2350	156	1250	141	262	30	49
16	90	189	759	147	662	2290	170	649	122	150	19	78
17	106	238	686	198	5170	1500	150	534	109	113	41	78
18	92	236	627	211	8560	1090	140	379	95	100	84	74
19	83	206	510	217	3610	994	130	271	81	91	73	76
20	83	199	450	319	4370	826	150	330	75	84	99	84
21	311	276	400	369	2310	616	203	306	68	79	214	199
22	462	341	370	411	1820	548	320	235	67	79	117	123
23	314	592	357	560	1650	504	120	187	61	72	63	155
24	234	536	321	552	1430	468	90	178	62	58	59	594
25	216	409	288	525	1270	425	70	191	81	50	48	431
26	178	380	260	610	1110	393	64	183	75	44	40	304
27	111	1970	230	691	1220	406	70	174	64	44	35	214
28	99	5220	210	670	1380	372	90	438	79	55	62	110
29	96	7890	190	659	---	327	180	473	100	62	95	129
30	95	2140	166	640	---	304	120	341	88	45	80	70
31	86	---	154	568	---	287	---	249	---	35	47	---
TOTAL	4234	29951	16470	9576	52703	24481	5223	8629	5426	3891	1867	7055
MEAN	137	998	531	309	1882	790	174	278	181	126	60.2	235
MAX	462	7890	1430	691	8560	2350	320	1250	613	448	234	885
MIN	72	82	154	84	577	287	64	44	61	35	17	49
CFSM	.29	2.14	1.14	.66	4.04	1.70	.37	.60	.39	.27	.13	.50
IN	.34	2.39	1.31	.76	4.21	1.95	.42	.69	.43	.31	.15	.56

CAL YR 1985	TOTAL	181730	MEAN	498	MAX	7890	MIN	58	CFSM	1.07	IN 14.51
WTR YR 1986	TOTAL	169506	MEAN	464	MAX	8560	MIN	17	CFSM	.00	IN 13.53

03280000 NORTH FORK KENTUCKY RIVER AT JACKSON, KY

LOCATION.--Lat 37°32'46", long 83°22'21", Breathitt County, Hydrologic Unit 05100201, on left bank at city water plant on Armory Drive at Jackson, 2.8 mi downstream from Quicksand Creek, and at mile 305.0.

DRAINAGE AREA.--1,101 mi².

PERIOD OF RECORD.--June 1928 to September 1931, December 1936 to February 1937, April 1938 to current year. Gage-height records collected at same site during periods 1904-07, 1921-31, and February to December 1934 (above 8.0 ft only), January 1935 to September 1976 are published in reports of National Weather Service.

REVISED RECORDS.--WSP 853: 1929(M). WSP 1335: 1928(M), 1929, 1931(M), WSP 1435: 1954-55: WSP 1505: 1948. WSP 1555: Drainage area.

GAGE.--Water-stage recorder.--Datum of gage is 697.67 ft above National Geodetic Vertical Datum of 1929. Prior to October 1, 1941, at datum 1.00 ft higher. Oct. 1, 1941 to Aug. 22, 1975, nonrecording gage at same site and datum. Aug. 23, 1975 to Aug. 22, 1980, water-stage recorder 0.5 mi downstream at present datum.

REMARKS.--Estimated daily discharges: Dec. 22-24, 26-29, Jan. 8-17, 30-31. Records good except for estimated daily discharges, which are poor. Small diversions by city of Jackson waterworks. Flow regulated by Carr Fork Lake (station 03277446) beginning January 1976. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--51 years (1928-31, 1938-85), 1,348 ft³/s, 16.63 in/yr, unadjusted.

EXT<EMES FOR PERIOD OF RECORD.--Maximum discharge, 53,500 ft³/s, Jan. 30, 1957; maximum gage height, 43.10 ft, Feb. 4, 1939, present datum; no flow Oct. 16, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1926, that of Feb. 4, 1939. Flood of May 30, 1927, reached a stage of 42.9 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 14,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³s)	Gage height (ft)	Date	Time	Discharge (ft³s)	Gage height (ft)
Nov. 29	1800	*22,200	*25.21	Feb. 18	2000	20,000	23.50

Minimum discharge, 52 ft³/s, Aug. 7, 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	239	255	4290	450	1090	2460	599	393	423	152	96	131
2	731	254	3020	462	1340	2220	576	362	342	212	82	998
3	459	719	2200	443	3010	1950	550	331	293	251	74	929
4	419	2410	1860	428	6450	1750	539	319	271	215	66	661
5	365	5610	1650	412	5340	1570	517	306	277	191	61	558
6	287	6400	1540	376	3910	1420	491	294	308	176	60	609
7	234	3680	1200	361	4550	1340	497	291	352	145	53	369
8	210	2310	1020	330	4820	1200	497	290	554	109	52	250
9	184	1530	882	310	3350	1080	493	298	691	103	61	179
10	163	1100	811	300	2630	1010	462	302	833	96	56	136
11	155	878	748	290	2140	1050	452	291	747	268	129	113
12	147	698	737	280	1750	1190	441	899	643	427	186	155
13	140	597	2290	270	1430	1250	423	886	482	371	268	296
14	145	545	3600	265	1270	1410	415	1530	363	350	229	215
15	331	513	2960	260	1250	3240	406	2040	308	442	157	161
16	347	486	2280	250	1380	4980	410	2050	249	314	121	128
17	260	528	1850	240	6300	3790	411	1250	221	215	142	104
18	216	531	1540	289	18000	2780	413	971	190	166	201	113
19	203	510	1210	563	15400	2230	406	732	171	142	177	121
20	189	457	1040	1000	10900	1970	387	619	162	128	255	127
21	1230	427	883	931	7020	1550	424	599	149	158	684	214
22	2490	533	840	999	4320	1260	508	536	142	150	313	278
23	1170	731	800	1180	3560	1120	516	433	126	139	239	223
24	861	936	750	1210	3040	1030	458	377	119	126	158	879
25	684	816	700	1140	2750	930	404	356	116	114	124	970
26	571	704	620	1200	2390	839	380	372	114	100	108	601
27	464	7620	560	1360	2230	824	373	388	115	97	90	396
28	368	13600	520	1220	2530	827	352	489	117	105	99	323
29	312	20400	490	1150	---	742	371	714	117	113	96	219
30	282	14800	435	1110	---	675	400	676	133	102	110	176
31	268	---	448	1100	---	641	---	525	---	99	119	---
TOTAL	14124	90578	43774	20179	124150	50328	13571	19919	9134	5776	4666	10632
MEAN	456	3019	1412	651	4434	1623	452	643	304	186	151	354
MAX	2490	20400	4290	1360	18000	4980	599	2050	833	442	684	998
MIN	140	254	435	240	1090	641	352	290	114	96	52	104
CFSM	.41	2.74	1.28	.59	4.03	1.47	.41	.58	.28	.17	.14	.32
IN	.48	3.06	1.46	.68	4.19	1.70	.46	.67	.31	.20	.16	.36

CAL YR 1985 TOTAL 499260 MEAN 1368 MAX 20400 MIN 110 CFSM 1.24 IN 16.87
WTR YR 1986 TOTAL 406831 MEAN 1115 MAX 20400 MIN 52 CFSM 1.01 IN 13.75

03280600 MIDDLE FORK KENTUCKY RIVER NEAR HYDEN, KY

LOCATION.--Lat 37°08'13", long 83°22'17", Leslie County, Hydrologic unit 05100202, on left bank on U.S. Highway 421, 0.2 mi upstream from unnamed tributary, 0.4 mi downstream from Munsey Creek, 1.7 mi south of Hyden, and at mile 76.1.

DRAINAGE AREA.--202 mi².

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 833.00 ft above National Geodetic Ve tical Datum of 1929. Prior to Dec. 23, 1957, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges, Dec. 19, 22, 23, 26, 27, 30, and Jan. 2, 7, 9-17, 28-30, and Aug. 15-18. records good except for estimated daily discharges, which are poor. Small diversion by city of Hyden from reservoir for municipal water supply. Dam fur the reservoir completed November 1968. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--29 years, 293 ft³/s, 19.70 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,400 ft³/s, Mar. 12, 1963, gage height, 26.13 ft, from rating curve extended above 11,000 ft³/s; no flow for several days in 1975, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 29, 1957, reached a stage of 33.3 ft, discharge, about 60,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,900 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	2200	5,880	10.61	Feb. 18	0400	*7,360	*11.66

Minimum daily discharge, 0.00 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	16	534	107	214	539	127	87	49	7.6	.00	995
2	48	18	414	110	305	485	121	87	39	5.4	.00	496
3	60	29	300	117	1070	434	113	81	32	4.5	.00	310
4	51	260	250	108	1770	368	104	72	31	4.6	.00	179
5	34	762	227	105	1170	322	94	69	34	5.2	.00	112
6	23	526	226	86	1170	305	89	64	33	4.5	.00	66
7	19	314	188	58	1770	282	87	63	40	3.9	.00	41
8	16	189	173	53	1040	243	80	59	55	1.2	.00	26
9	18	121	162	45	654	229	76	53	52	.00	.00	16
10	20	88	143	40	494	222	71	41	181	10	.00	12
11	20	70	128	38	417	279	68	38	128	30	.00	9.5
12	20	56	146	36	317	319	65	36	81	40	62	27
13	20	48	285	34	259	387	63	43	53	24	39	36
14	25	45	484	32	242	451	63	54	34	18	16	18
15	31	40	448	30	264	1510	61	417	23	33	9.5	11
16	41	41	372	29	286	1510	61	292	17	39	8.0	8.8
17	33	105	308	28	3000	827	59	179	13	24	10	7.4
18	27	108	252	60	4920	576	56	128	12	13	34	7.0
19	28	88	210	115	1890	535	47	96	11	11	22	6.7
20	28	79	184	192	1570	436	45	93	9.1	8.8	197	6.8
21	112	67	171	180	957	365	88	71	8.2	11	114	24
22	70	74	160	216	666	319	109	58	7.5	13	41	30
23	41	100	150	258	543	291	82	51	6.6	11	19	14
24	31	96	148	259	467	260	68	67	5.3	7.1	13	74
25	28	88	137	261	423	224	67	102	4.5	4.8	9.7	47
26	23	84	120	283	374	202	67	104	4.1	3.3	7.5	23
27	20	700	110	267	466	199	67	89	3.3	2.8	7.1	15
28	19	2480	104	250	551	189	69	116	3.3	1.9	54	11
29	16	3050	87	240	---	169	112	86	9.4	1.1	42	10
30	16	918	80	220	---	154	94	77	10	1.9	20	14
31	15	---	88	205	---	139	---	62	---	.57	13	---
TOTAL	979	10660	6789	4072	27269	12770	2373	2935	989.3	346.17	737.80	2653.2
MEAN	31.6	355	219	131	974	412	79.1	94.7	33.0	11.2	23.8	88.4
MAX	112	3050	534	283	4920	1510	127	417	181	40	197	995
MIN	15	16	80	28	214	139	45	36	3.3	.00	.00	6.7
CFSM	.16	1.76	1.08	.65	4.82	2.04	.39	.47	.16	.06	.12	.44
IN	.18	1.96	1.25	.75	5.02	2.35	.44	.54	.18	.06	.14	.49

CAL YR 1985 TOTAL 89972.5 MEAN 246 MAX 3050 MIN 9.0 CFSM 1.22 IN 16.57
WTR YR 1986 TOTAL 72573.47 MEAN 199 MAX 4920 MIN .00 CFSM .99 IN 13.37

KENTUCKY RIVER BASIN

03280700 CUTSHIN CREEK AT WOOTON, KY

LOCATION.--Lat 37°9'54", long 83°18'29", Leslie County, Hydrologic Unit 05100202, on right bank 15 ft downstream from bridge on State Highway 80, 400 ft upstream from Poundmill Branch, 600 ft upstream from Rockhouse Branch, 0.7 mi downstream from Saw Branch, 1.0 mi southwest of Wooton, and at mile 10.7.

DRAINAGE AREA.--61.3 mi².

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 869.84 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 26, 1957, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 25, 26, Jan. 2, 7-17, 28-30, Apr. 6 to May 10, and May 31 to June 2.Records good except for estimated daily discharges, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--29 years, 94.2 ft³/s, 20.87 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft³/s, Mar. 12 1963, gage height, 16.23 ft, from rating curve extended above 2,300 ft³/s, on basis of contracted-opening measurement of peak flow; no flow Sept. 29, 1959, Sept. 12-27, 1964, Sept. 5, 1975, Sept. 20, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1957 reached a stage of 19.43 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	2100	*3,130	*7.47	Feb. 18	0330	2,510	6.70

Minimum daily discharge, 0.18 ft³/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	7.3	155	24	47	122	34	24	14	3.6	.71	504
2	19	9.8	107	23	73	112	34	23	13	3.6	.51	104
3	21	24	78	22	475	102	32	22	12	8.0	.50	70
4	14	140	66	21	456	90	32	23	26	3.8	.35	62
5	9.2	351	66	21	275	82	30	23	26	2.1	.26	52
6	6.2	167	59	19	247	83	29	22	17	1.8	.23	34
7	4.6	85	47	17	332	75	28	21	17	1.5	.18	25
8	3.7	50	43	13	200	65	28	20	65	1.3	3.4	21
9	3.2	33	40	11	130	64	27	20	37	2.2	2.1	17
10	3.2	26	37	10	105	63	26	19	52	89	2.4	9.1
11	3.1	22	33	9.7	91	83	26	19	45	36	91	7.9
12	3.3	19	43	9.4	68	90	25	28	31	35	26	23
13	3.7	18	123	9.0	58	99	24	27	21	18	8.6	13
14	4.3	17	140	8.8	56	113	24	44	16	28	5.1	8.6
15	9.6	15	110	8.6	64	295	23	82	13	44	4.7	7.0
16	11	17	91	8.4	103	281	24	93	10	15	6.1	6.1
17	6.6	29	77	8.2	1270	172	23	73	8.2	10	10	6.7
18	4.5	21	59	16	1390	127	22	40	7.3	7.1	7.8	7.9
19	6.1	20	44	35	423	119	21	33	6.0	5.5	6.5	7.9
20	6.4	19	43	33	330	94	23	34	5.6	4.1	175	19
21	74	18	36	27	202	80	38	26	5.5	7.7	35	40
22	25	26	35	39	145	72	29	23	4.4	6.6	17	16
23	15	24	35	42	115	66	26	20	3.7	3.3	14	16
24	15	23	32	42	105	60	24	22	3.1	2.2	14	97
25	12	21	29	45	93	53	24	26	4.4	1.8	12	33
26	11	25	25	59	87	49	24	22	3.1	1.6	11	24
27	8.4	509	25	55	122	52	23	25	2.4	1.7	12	17
28	7.3	1490	23	53	127	47	30	30	2.7	1.7	29	17
29	7.0	1080	21	51	---	44	38	26	15	1.9	17	20
30	6.7	283	18	48	---	41	27	20	6.0	1.3	9.5	15
31	7.0	---	22	45	---	36	---	16	---	.82	8.5	---
TOTAL	337.4	4588.1	1762	833.1	7189	2931	818	946	492.4	350.22	530.44	1300.2
MEAN	10.9	153	56.8	26.9	257	94.5	27.3	30.5	16.4	11.3	17.1	43.3
MAX	74	1490	155	59	1390	295	38	93	65	89	175	504
MIN	3.1	7.3	18	8.2	47	36	21	16	2.4	.82	.18	6.1
CFSM	.18	2.50	.93	.44	4.19	1.54	.45	.50	.27	.18	.28	.71
IN	.20	2.78	1.07	.51	4.36	1.78	.50	.57	.30	.21	.32	.79

CAL YR 1985	TOTAL	24442.4	MEAN	67.0	MAX	1490	MIN	1.4	CFSM 1.09	IN	14.83
WTR YR 1986	TOTAL	22077.86	MEAN	60.5	MAX	1490	MIN	.18	CFSM .99	IN	13.40

03281000 MIDDLE FORK KENTUCKY RIVER AT TALLEGA, KY

LOCATION.--Lat 37°33'18", long 83°35'38", Lee County, Hydrologic Unit 05100202, on downstream side of left pier of bridge on State Highway 708, 100 ft upstream from Lynam Creek, 0.5 mi southwest of Tallega, 8.3 mi upstream from confluence with North Fork, and at mile 8.3.

DRAINAGE AREA.--537 mi^2.

PERIOD OF RECORD.--October 1930 to March 1932, October 1939 to current year.

REVISED RECORDS.--WSP 1113: 1931, 1940. WSP 1385: 1931-32, 1948, drainage area. WSP 1505: 1946(M), 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 642.13 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 6, 1940, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 23-26, 29-31, Jan. 9-14, 29-31, Apr. 14-16, June 25-30 and July 30 to Aug. 9. Records good except for estimated daily discharges, which are poor. Flow regulated by Buckhorn Lake beginning December 1960 (station 03280800). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--48 years (1930-31, 1939-85), 722 ft^3/s, 18.26 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,700 ft^3/s, Jan. 30, 1957, gage height, 43.33 ft, from rating curve extended above 14,000 ft^3/s, on basis of contracted-opening measurement of peak flow; minimum daily, 0.1 ft^3/s, Oct. 12-22, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1939 reached a stage of 40.5 ft, from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,540 ft^3/s, Feb. 18, gage height, 16.63 ft; minimum daily discharge 36 ft^3/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	349	2720	175	408	1940	175	67	55	43	44	47
2	386	378	2630	239	510	1180	169	56	53	51	42	60
3	276	421	3180	269	1420	1000	165	64	53	73	40	505
4	191	821	3210	220	2340	972	156	62	52	50	39	587
5	108	2190	3080	199	2140	907	131	60	53	41	38	337
6	89	2120	3080	194	2380	681	125	58	55	40	37	304
7	106	1990	2850	194	2740	667	129	52	54	43	36	216
8	134	2200	1720	183	3000	536	121	48	86	48	38	140
9	136	1410	550	180	2990	519	104	48	123	40	41	94
10	136	636	419	170	2760	463	94	46	82	61	45	86
11	130	592	420	170	1740	464	91	44	78	76	48	84
12	109	482	387	160	1260	522	89	47	71	82	62	98
13	85	398	1170	160	806	712	87	53	62	67	56	103
14	91	447	1790	155	729	732	85	48	54	67	47	82
15	213	437	1320	149	418	958	83	50	53	63	44	74
16	265	420	1170	145	556	1500	82	51	51	59	44	71
17	341	453	1070	149	2450	2470	81	51	49	59	51	104
18	306	464	721	154	3920	2500	80	49	47	58	80	119
19	289	506	540	357	3590	1920	77	50	47	53	62	120
20	295	493	511	523	3290	1000	75	64	45	49	51	106
21	815	706	344	540	3200	955	86	55	44	52	49	164
22	1770	973	303	639	3010	662	94	52	43	58	49	135
23	788	983	290	598	2870	627	78	48	42	58	46	176
24	574	449	270	562	2810	607	74	49	42	55	43	310
25	531	439	250	548	3060	411	72	49	40	54	40	340
26	509	406	240	638	3000	412	71	49	39	53	38	414
27	406	2980	229	627	2880	504	69	61	39	62	39	269
28	391	3680	217	553	2670	402	69	136	40	70	47	190
29	385	3570	210	500	---	316	75	89	41	54	47	132
30	332	2400	200	487	---	240	74	69	42	49	43	91
31	305	---	190	450	---	183	---	60	---	46	39	---
TOTAL	10594	33793	35281	10280	62947	26962	2961	1795	1635	1734	1425	5558
MEAN	342	1126	1138	332	2248	870	98.7	57.9	54.5	55.9	46.0	185
MAX	1770	3680	3210	639	3920	2500	175	136	123	82	80	587
MIN	82	349	190	145	408	183	69	44	39	40	36	47
CFSM	.64	2.10	2.12	.62	4.19	1.62	.18	.11	.10	.10	.09	.34
IN	.73	2.34	2.44	.71	4.36	1 87	.21	.12	.11	.12	.10	.39

CAL YR 1985 TOTAL 254432 MEAN 697 MAX 3690 MIN 43 CFSM 1.30 IN 17.63
WTR YR 1986 TOTAL 194965 MEAN 534 MAX 3920 MIN 36 CFSM .99 IN 13.51

03281040 RED BIRD RIVER NEAR BIG CREEK, KY

LOCATION.--Lat 37C10'43", long 83C35'35", Clay County, Hydrologic Unit 05100203, on right bank adjacent to State Highway 66, 0.1 mi upstream from Fish Trap Branch, 0.5 mi downstream from Britton Branch, 1.2 mi downstream from Big Creek, 1.7 mi northwest of Big Creek, and at mile 58.9.

DRAINAGE AREA.--155 miU.

PERIOD OF RECORD.--August 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 815.74 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 19-22, 26-29, Jan. 2, 6, 10-17 and Jan. 28. Records good except for estimated daily discharges, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--14 years, 274 ftZ/s, 24.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ftZ/s, May 7, 1984, gage height, 19.40 ft; minimum daily, 0.20 ftZ/s, Oct. 4, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of 1947 and 1957 reached a stage of 29.27 ft and 27.60 ft, respectively, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ftZ/s and maximum (*):

Date	Time	Discharge (ftZ/s)	Gage height (ft)	Date	Time	Discharge (ftZ/s)	Gage height (ft)
Nov. 28	2100	*9,490	*11.49	Feb. 18	0530	6,780	9.55

Minimum daily discharge, 1.7 ftZ/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	31	450	68	126	374	91	56	20	11	5.2	375
2	160	35	342	70	192	331	87	55	18	8.4	4.3	180
3	66	72	256	73	1360	309	81	49	16	6.8	4.0	108
4	55	545	216	73	1570	282	75	45	15	4.7	2.8	72
5	42	1490	186	72	999	264	71	43	15	6.7	2.1	63
6	29	758	179	68	923	205	69	46	14	6.9	1.8	42
7	22	368	146	65	1420	188	69	44	12	5.0	1.7	28
8	16	222	134	47	787	171	65	41	19	4.1	1.8	19
9	12	149	122	40	531	155	63	40	35	3.9	2.1	14
10	9.3	115	110	38	374	150	61	34	23	40	4.6	11
11	8.5	96	101	[illegible]	289	220	57	30	24	70	24	9.6
12	9.6	77	120	[illegible]	224	256	54	28	39	57	89	44
13	14	67	501	34	180	298	53	59	36	29	31	43
14	26	61	576	33	164	310	52	69	21	42	16	24
15	46	56	382	32	174	1020	50	56	16	70	9.0	15
16	39	59	295	31	210	998	49	50	12	54	31	12
17	35	104	238	30	2910	552	49	49	9.1	28	56	8.8
18	27	99	191	44	4240	386	49	36	7.1	20	58	8.1
19	24	94	170	154	1350	347	44	30	5.8	14	28	7.9
20	23	91	150	234	993	280	41	32	5.6	12	18	7.7
21	957	77	140	210	662	232	74	37	4.9	52	28	55
22	272	73	130	217	470	203	74	28	4.2	32	19	47
23	117	77	119	222	425	183	58	24	4.1	16	10	27
24	82	70	107	203	343	166	53	26	3.8	10	7.0	138
25	71	64	95	191	286	147	49	43	3.5	7.4	4.2	65
26	55	61	80	194	253	134	48	55	3.1	6.8	2.8	49
27	49	2670	72	173	338	133	50	40	2.9	6.8	3.9	33
28	42	4050	65	170	384	120	52	40	2.8	8.0	26	24
29	37	3150	60	169	---	111	77	39	2.7	18	35	19
30	36	865	58	149	---	103	61	29	10	9.6	17	19
31	32	---	63	126	---	97	---	24	---	6.2	9.5	---
TOTAL	2531.4	15766	5854	3301	22197	8725	1826	1277	404.6	666.3	552.8	1588.1
MEAN	81.7	526	189	106	793	281	60.9	41.2	13.5	21.5	17.8	52.9
MAX	957	4050	576	234	4240	1020	91	69	39	70	89	375
MIN	8.5	31	58	30	126	97	41	24	2.7	3.9	1.7	7.7
CFSM	.53	3.39	1.22	.68	5.12	1.81	.39	.27	.09	.14	.11	.34
IN	.61	3.78	1.40	.79	5.33	2.09	.44	.31	.10	.16	.13	.38

CAL YR 1985	TOTAL	79760.5	MEAN	219	MAX	4050	MIN	2.5	CFSM 1.41	IN	19.14
WTR YR 1986	TOTAL	64689.2	MEAN	177	MAX	4240	MIN	1.7	CFSM 1.14	IN	15.53

03281100 GOOSE CREEK AT MANCHESTER, KY

LOCATION.--Lat 37°09'07", long 83°45'37", Clay County, Hydrologic Unit 05100203, on left bank on downstream side of Second Street bridge at Manchester, 0.9 mi upstream from Little Goose Creek, and at mile 21.7.

DRAINAGE AREA.--163 mi².

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 819.37 ft above National Geodetic Vertical Datum of 1929. Prior to September 15, 1975, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 22, 26, 27, Jan. 9-17, 27, 28, and 31. Records good except for estimated daily discharges, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--22 years, 262 ft³/s, 21.83 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,200 ft³/s, May 7, 1984, gage height, 32.85 ft; no flow Oct. 8, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1947, Jan. 29, 1957, and Mar. 12, 1963, reached a stage of 40.6 ft, discharge, 38,000 ft³/s, 37.3 ft, discharge, 29,800 ft³/s, and 33.5 ft, discharge, 21,500 ft³/s, respectively, present site.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 29	0400	4,950	17.09	Feb. 18	0800	*5,670	*18.32

Minimum daily discharge, 0.67 ft³/s, Aug. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	30	449	76	145	342	82	47	28	1.6	1.2	283
2	293	29	363	68	169	310	77	46	23	2.1	1.2	277
3	103	116	277	70	619	281	73	40	21	2.2	1.0	162
4	54	500	233	71	1590	235	67	36	19	2.6	.86	102
5	36	1410	209	71	931	204	61	33	17	2.1	.67	99
6	26	758	192	63	873	190	57	32	15	1.4	.84	65
7	19	443	156	63	1240	172	55	33	14	1.2	2.3	37
8	15	295	138	49	783	145	53	33	25	1.2	2.9	24
9	11	198	126	43	490	135	49	30	41	2.6	4.1	16
10	11	148	111	41	372	129	49	25	77	35	7.2	12
11	9.2	117	103	40	326	172	46	22	71	179	31	8.6
12	7.7	93	143	39	253	204	43	20	78	93	91	79
13	5.4	75	590	38	211	227	42	24	53	35	20	71
14	8.0	63	706	37	203	244	41	115	33	25	10	32
15	63	53	451	36	208	632	39	97	23	26	6.3	20
16	56	63	349	35	230	734	37	73	17	22	5.3	15
17	38	141	280	34	2290	479	40	51	13	15	55	11
18	28	134	223	41	5010	368	39	38	9.8	10	39	9.3
19	22	120	165	290	1340	327	34	32	7.9	8.7	20	7.6
20	23	102	158	510	854	262	34	34	6.8	7.1	11	9.4
21	1120	82	140	396	572	210	67	31	5.4	6.1	7.0	61
22	479	87	130	350	417	180	68	24	4.5	5.1	6.4	36
23	200	88	129	297	342	164	51	21	3.9	7.6	3.9	26
24	128	72	121	259	307	150	43	26	3.4	5.4	2.1	101
25	94	64	109	238	287	136	41	82	2.7	3.9	1.3	59
26	67	66	100	239	259	126	40	80	2.3	3.0	31	35
27	53	1970	88	220	325	124	39	70	2.0	2.5	18	23
28	44	2640	83	200	355	111	40	61	1.7	2.2	20	16
29	38	3420	74	184	---	101	64	49	2.1	2.1	14	12
30	35	785	64	170	---	93	52	40	1.8	1.6	6.8	9.3
31	32	---	67	155	---	88	---	33	---	1.2	8.9	---
TOTAL	3289.3	14162	6527	4423	21001	7275	1523	1378	622.3	513.5	430.27	1718.2
MEAN	106	472	211	143	750	235	50.8	44.5	20.7	16.6	13.9	57.3
MAX	1120	3420	706	510	5010	734	82	115	78	175	91	283
MIN	5.4	29	64	34	145	88	34	20	1.7	1.2	.67	7.6
CFSM	.65	2.90	1.29	.88	4.60	1.44	.31	.27	.13	.10	.09	.35
IN	.75	3.23	1.49	1.01	4.79	1.66	.35	.31	.14	.12	.10	.39

CAL YR 1985 TOTAL 75753.9 MEAN 208 MAX 3420 MIN 1.6 CFSM 1.28 IN 17.29
WTR YR 1986 TOTAL 62862.57 MEAN 172 MAX 5010 MIN .67 CFSM 1.06 IN 14.35

03281500 SOUTH FORK KENTUCKY RIVER AT BOONEVILLE, KY

LOCATION.--Lat 37°28'45", long 83°40'38", Owsley County, Hydrologic Unit 05100203, on right bank 600 ft downstream from Buck Creek, 0.2 mi downstream from bridge on State Highway 30 at Booneville, 0.5 mi downstream from Meadow Creek, and at mile 11.5.

DRAINAGE AREA.--722 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1925 to September 1931, October 1939 to current year. Monthly discharge only for October 1939, published in WSP 1305.

REVISED RECORDS.--WSP 893: 1929(M). WSP 1335: WSP 155[illegible]: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 642.49 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 5, 1925, nonrecording gage at site 0.1 mi upstream from Meadow Creek and Aug. 5, 1925, to Sept. 30, 1929, nonrecording gage on highway bridge 0.1 mi upstream from Meadow Creek, at datum 3.07 ft higher. Oct. 1 to Nov. 27, 1929, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Dec. 22, Jan. 11-17, and Jan. 28, 29. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--53 years, 1,048 ft³/s, 19.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 66,100 ft³/s, Jan. 30, 1957, from rating curve extended above 35,000 ft³/s, on basis of slope-area measurement of peak flow; maximum gage height, 43.40 ft, Jan. 30, 1957; no flow Oct. 11-28, Nov. 3-14, 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 14,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 29	1400	14,800	24.50	Feb. 18	1500	*15,500	*25.15

Minimum daily discharge, 6.1 ft³/s, Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	204	2580	276	535	1260	348	214	163	12	31	79
2	479	193	1780	281	649	1190	330	191	135	28	24	495
3	706	280	1280	275	1690	1110	317	176	114	38	20	530
4	353	998	1030	266	5700	1000	305	166	100	21	16	309
5	231	3890	912	266	3920	887	287	154	96	17	12	233
6	187	3740	845	248	3440	800	268	145	99	15	9.9	195
7	151	2060	728	240	4480	759	257	139	89	13	7.1	161
8	130	1270	617	215	3920	656	249	140	280	11	6.4	118
9	113	922	556	192	2470	574	237	144	418	9.9	6.1	82
10	97	695	497	175	1730	539	227	133	242	30	6.6	62
11	83	556	450	165	1450	553	220	126	214	28	9.8	48
12	74	458	470	160	1150	670	209	115	214	23	9.9	69
13	65	392	2050	155	948	849	203	107	202	198	6.6	159
14	71	357	3660	150	863	1080	198	118	195	149	85	199
15	247	322	2380	145	866	1390	196	185	153	107	79	132
16	257	296	1640	140	940	3010	192	225	114	246	52	87
17	259	326	1250	135	5790	2410	186	219	88	170	42	63
18	207	469	1020	178	14900	1680	184	212	70	131	73	51
19	169	478	789	514	9710	1340	180	185	57	89	130	44
20	144	443	669	1770	3950	1170	171	221	48	63	125	38
21	1220	403	622	1620	2690	949	188	172	41	62	87	36
22	3220	617	560	1320	1900	796	241	161	35	66	64	57
23	1150	838	528	1170	1490	698	265	140	29	52	52	134
24	732	724	517	1020	1240	637	228	120	26	51	48	288
25	655	578	466	931	1170	571	203	111	23	40	41	612
26	528	495	373	909	1050	510	189	132	19	30	31	286
27	397	6100	353	859	1060	495	178	276	17	24	29	181
28	322	11700	343	780	1280	475	174	349	15	25	30	126
29	269	13800	325	740	---	424	184	343	13	25	40	96
30	241	6810	283	719	---	389	196	266	12	49	69	73
31	219	---	280	597	---	368	---	203	---	44	75	---
TOTAL	13066	60414	29853	16611	80981	29239	6810	5588	3321	1866.9	1317.3	5043
MEAN	421	2014	963	536	2892	943	227	180	111	60.2	42.5	168
MAX	3220	13800	3660	1770	14900	3010	348	349	418	246	130	612
MIN	65	193	280	135	535	368	171	107	12	9.9	6.1	36
CFSM	.58	2.79	1.33	.74	4.01	1.31	.31	.25	.15	.08	.06	.23
IN	.67	3.11	1.54	.86	4.17	1.51	.35	.29	.17	.10	.07	.26

CAL YR 1985 TOTAL 341949 MEAN 937 MAX 13800 MIN 26 CFSM 1.30 IN 17.62
WTR YR 1986 TOTAL 254110.2 MEAN 696 MAX 14900 MIN 6.1 CFSM .96 IN 13.09

03282000 KENTUCKY RIVER AT LOCK 14, AT HEIDELBERG, KY

LOCATION.--Lat 37°33'19", long 83°46'06", Lee County, Hydrologic Unit 05100204, on right bank 200 ft upstream from lock 14 at Heidelberg, 0.3 mi upstream from Sturgeon Creek, and at mile 249.2.

DRAINAGE AREA.--2,657 mi².

PERIOD OF RECORD.--October 1925 to September 1931, December 1936 to February 1937, July 1938 to current year. Gage-height records collected in this vicinity since 1902 are published in reports of National Weather Service.

REVISED RECORDS.--WSP 1385: 1926-27, 1928(M), 1929, 1931(M), 1937, 1939(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 626.66 ft Ohio River datum (U.S. Army Corps of Engineers bench mark). Prior to September 2, 1939, nonrecording gage at lock 14 at same datum.

REMARKS.--Estimated daily discharges: Dec. 22, 24, 25, 27, 28, Jan. 9-13 and Jan. 28-31. Records good above 1,000 ft³/s, fair between 1,000 ft³s and 150 ft³/s, poor below 150 ft³/s and for periods of estimated daily discharge. Flow regulated by Buckhorn Lake beginning December 1960 (station 03280800), and by Carr Fork Lake beginning January 1976 (station 03277446). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--54 years (1925-31, 1938-86), 3,607 ft³/s, 18.44 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft³s, Feb. 4, 1939, gage height, 35.6 ft, from floodmark; minimum, 4.0 ft³s, Oct. 20, 1930; minimum gage height observed, 2.9 ft Nov. 22, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35,700 ft³/s, Feb. 18, gage height, 18.94 ft; minimum, 36 ft³/s Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	263	827	17300	1110	2630	6330	1330	678	802	143	124	247
2	991	884	9840	1130	2820	5410	1280	638	639	274	85	450
3	1950	1290	8190	1220	6600	4820	1210	570	539	351	69	2280
4	1140	3580	7290	1140	17000	4210	1160	530	500	361	69	2150
5	830	11100	6490	1070	16000	3920	1090	501	449	284	73	1480
6	656	14700	6320	1010	13100	3360	1030	483	468	218	66	1210
7	549	10800	5760	960	14700	3120	1010	458	449	192	62	1100
8	489	7410	4270	869	15400	2810	973	456	758	154	58	707
9	444	5030	2850	820	12000	2520	912	450	1360	118	46	492
10	400	3220	2230	780	8970	2340	863	438	1340	106	46	371
11	369	2550	2100	760	6740	2370	839	405	1380	135	66	301
12	322	2140	2110	740	5240	2580	808	408	1290	238	64	342
13	271	1770	4850	700	4110	3450	777	986	1040	623	137	383
14	256	1570	11100	691	3540	3890	754	958	849	680	244	609
15	531	1500	8820	683	3170	5590	743	2020	664	586	355	506
16	921	1380	6600	678	3210	10100	720	2470	531	798	264	381
17	1020	1430	5300	679	13600	11200	704	2190	436	669	205	324
18	885	1600	4210	728	34200	8730	702	1520	374	485	219	310
19	728	1690	3290	1350	32900	6680	695	1210	323	356	328	305
20	694	1620	2790	3950	24300	5030	666	1100	290	271	377	308
21	2110	1690	2440	4080	19000	4230	738	927	264	241	399	348
22	8130	3030	2200	3690	12900	3320	818	839	224	241	751	398
23	4470	3810	2010	3570	9950	2870	911	737	198	263	488	572
24	2820	2830	1800	3380	8490	2680	859	620	179	240	379	1130
25	2430	2420	1700	3200	8150	2320	752	547	167	207	283	2160
26	2030	2190	1540	3160	7550	2120	684	543	146	172	213	1900
27	1630	17400	1450	3210	7070	2130	644	850	134	151	184	1270
28	1340	32100	1400	3000	7010	2050	635	1220	121	140	165	862
29	1150	34800	1380	2900	---	1800	666	1170	116	143	145	680
30	1000	29600	1250	2800	---	1610	679	1250	117	137	156	501
31	858	---	1170	2700	---	1420	---	1040	---	153	188	---
TOTAL	41677	205961	140050	56758	320350	125010	25652	28212	16147	9130	6308	24077
MEAN	1344	6865	4518	1831	11440	4033	855	910	538	295	203	803
MAX	8130	34800	17300	4080	34200	11200	1330	2470	1380	798	751	2280
MIN	256	827	1170	678	2630	1420	635	405	116	106	46	247
CFSM	.51	2.58	1.70	.69	4.31	1.52	.32	.34	.20	.11	.08	.30
IN	.58	2.88	1.96	.79	4.49	1.75	.36	.39	.23	.13	.09	.34

CAL YR 1985 TOTAL 1270633 MEAN 3481 MAX 34800 MIN 137 CFSM 1.31 IN 17.79
WTR YR 1986 TOTAL 999332 MEAN 2738 MAX 34800 MIN 46 CFSM 1.03 IN 13.99

KENTUCKY RIVER BASIN

03282500 RED RIVER NEAR HAZEL GREEN, KY

LOCATION.--Lat 37°48'44", long 83°27'50", Wolfe County, Hydrologic Unit 05100204, on right bank 600 ft upstream from Buck Creek, 0.3 mi downstream from Chapel Branch, 2.7 mi northwest of Hazel Green, and at mile 72.7.

DRAINAGE AREA.--65.8 mi^2.

PERIOD OF RECORD.--April 1954 to current year.

REVISED RECORDS.--WRD KY 72-1: 1971.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 870.11 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Feb. 14. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--32 years, 87.4 ft^3/s, 18.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,080 ft^3/s, Feb. 27, 1962, gage height, 22.12 ft, from rating curve extended above 3,000 ft^3/s; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	1900	*2,070	*7.36	Feb. 18	0430	1,560	6.21

Minimum daily discharge, 0.22 ft^3/s, Aug. 10, 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	13	230	28	46	80	27	15	9.5	.55	.35	.29
2	20	14	164	25	51	76	25	15	7.7	3.4	.34	.29
3	10	73	111	26	118	77	23	13	5.8	6.9	.31	.31
4	6.5	190	89	24	330	69	22	12	4.9	3.7	.30	.32
5	5.1	273	77	24	286	62	19	12	4.6	1.1	.27	.32
6	3.7	185	78	22	292	63	18	12	4.4	.67	.25	.29
7	3.0	119	66	22	415	58	18	12	5.2	.55	.25	.28
8	2.6	81	60	15	277	48	16	13	7.9	.52	.25	.27
9	2.2	59	55	14	195	49	13	13	14	.49	.24	.30
10	1.4	49	46	15	149	48	12	12	9.1	.64	.22	.29
11	1.0	42	50	16	131	84	12	9.5	17	3.0	.25	.27
12	.85	41	74	18	107	89	11	8.9	25	8.7	.26	.32
13	.90	36	286	18	102	150	10	11	30	26	.26	.49
14	.81	34	342	16	100	198	9.9	12	21	26	.23	.49
15	1.6	31	206	16	83	383	10	17	14	12	.22	.44
16	4.1	31	150	15	104	262	9.6	15	9.7	6.2	.22	.42
17	3.2	42	114	17	733	183	9.5	10	7.4	9.2	.23	.39
18	2.9	37	86	18	1220	141	9.3	8.3	5.6	7.2	.23	.36
19	1.9	35	64	103	737	124	8.8	7.0	4.2	3.2	.26	7.2
20	1.6	33	62	160	601	93	9.1	12	3.0	1.9	.27	5.9
21	89	29	55	124	307	73	25	46	2.2	1.5	.27	6.8
22	65	301	51	130	206	62	31	23	1.6	.61	.25	2.7
23	32	291	53	116	157	58	22	17	1.2	.52	.29	.63
24	42	150	48	96	133	52	19	13	.89	.47	.33	42
25	73	103	40	87	115	45	18	11	.73	.45	.33	32
26	40	96	32	82	101	40	17	9.6	.67	.42	.43	14
27	28	803	35	65	107	43	17	9.3	.60	.40	.46	28
28	22	1900	34	59	89	38	16	16	.58	.46	.43	26
29	17	1260	31	61	---	34	23	18	.56	.51	.43	15
30	14	377	26	53	---	31	18	16	.55	.46	.36	8.8
31	14	---	28	46	---	29	---	13	---	.40	.32	---
TOTAL	512.46	6808	2843	1531	7292	2842	498.2	431.6	219.58	128.12	9.11	195.17
MEAN	16.5	227	91.7	49.4	260	91.7	16.6	13.9	7.32	4.13	.29	6.51
MAX	89	1900	342	160	1220	383	31	46	30	26	.46	42
MIN	.81	13	26	14	46	29	8.8	7.0	.55	.40	.22	.27
CFSM	.25	3.45	1.39	.75	3.95	1.39	.25	.21	.11	.06	.00	.10
IN	.29	3.85	1.61	.87	4.12	1.61	.28	.24	.12	.07	.01	.11

CAL YR 1985 TOTAL 31625.25 MEAN 86.6 MAX 1900 MIN .77 CFSM 1.32 IN 17.88
WTR YR 1986 TOTAL 23310.24 MEAN 63.9 MAX 1900 MIN .22 CFSM .97 IN 13.18

03283500 RED RIVER AT CLAY CITY, KY

LOCATION.--Lat 37°51'53", long 83°56'01", Powell County, Hydrologic Unit 05100204, on right bank 25 ft upstream from bridge on State Highway 15, 0.1 mi downstream from Skinner Branch, 0.4 mi upstream from Brush Creek, 0.5 mi west of Clay City, and at mile 21.6.

DRAINAGE AREA.--362 mi².

PERIOD OF RECORD.--October 1930 to March 1932, April 1938 to current year. Monthly discharge only for October 1930, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1931-32. WSP 1385: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 600.47 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Aug. 14, 1939, nonrecording gages, Aug. 14, 1939, to Aug. 13, 1975, water-stage recorder at site 50 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 22-26, 28-31, Jan. 1-5, 9-12, 27-31, Feb. 11-14, and Mar. 8-20. Records good except for estimated daily discharges, which are fair. Flow diversions by Clay City Water Plant which can be significant during low-flow periods. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--49 years (1930-31, 1938-86), 477 ft³/s, 17.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,800 ft³/s, Dec. 9, 1978, gage height, 26.75 ft; minimum, 1.2 ft³/s, Aug. 10-12, 1944, Aug. 7, 8, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 5,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 30	0500	*5,610	*14.55	No other peak greater than base discharge.			

Minimum daily discharge, 10 ft³/s, Jun. 30, Jul. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	67	1220	139	214	457	144	96	101	10	21	18
2	47	62	879	136	227	416	137	86	80	113	19	15
3	82	89	610	134	590	407	131	74	65	255	18	36
4	68	296	460	131	1620	386	125	67	56	91	16	23
5	51	707	392	129	1320	357	119	61	53	49	15	22
6	40	927	376	125	1130	338	114	59	53	35	14	19
7	33	567	344	115	1900	326	110	58	49	27	13	19
8	28	395	292	98	1620	320	104	89	66	20	15	23
9	25	285	272	93	1090	325	97	110	138	17	31	21
10	23	216	248	83	835	320	92	80	100	19	28	20
11	22	181	241	83	698	500	88	64	147	49	25	19
12	21	168	422	85	548	520	86	58	139	273	25	69
13	19	168	933	100	439	800	83	81	163	1400	35	77
14	19	150	1940	94	414	1100	82	189	124	887	29	62
15	18	138	1210	107	484	2000	91	348	93	366	20	38
16	19	268	855	94	598	1100	81	219	93	217	16	30
17	24	499	661	97	1970	800	82	146	79	150	18	24
18	29	315	523	94	4000	670	79	113	58	108	41	23
19	29	232	384	133	4280	540	73	92	44	85	46	26
20	28	192	330	447	3390	420	72	81	35	69	33	31
21	31	166	325	507	1790	359	179	77	29	91	21	71
22	191	155	232	458	1150	314	185	95	26	121	18	69
23	193	779	210	459	889	276	164	74	23	75	16	50
24	124	607	187	392	737	251	131	62	20	52	15	122
25	118	391	169	357	668	224	117	56	17	40	13	208
26	191	367	169	348	570	202	110	51	15	33	14	148
27	130	1930	199	325	588	209	103	80	13	29	19	182
28	98	3630	169	303	545	203	98	409	13	40	31	145
29	78	4750	175	278	---	180	111	250	11	35	40	107
30	70	4330	158	250	---	163	113	169	10	28	30	80
31	71	---	144	227	---	153	---	127	---	24	23	---
TOTAL	1949	23027	14729	6421	34304	14636	3301	3621	1913	4808	718	1797
MEAN	62.9	768	475	207	1225	472	110	117	63.8	155	23.2	59.9
MAX	193	4750	1940	507	4280	2000	185	409	163	1400	46	208
MIN	18	62	144	83	214	153	72	51	10	10	13	15
CFSM	.17	2.12	1.31	.57	3.38	1.30	.30	.32	.18	.43	.06	.17
IN	.20	2.37	1.51	.66	3.53	1.50	.34	.37	.20	.49	.07	.18

CAL YR 1985	TOTAL	151687	MEAN	416	MAX	4750	MIN	16	CFSM 1.15	IN	15.59
WTR YR 1986	TOTAL	111224	MEAN	305	MAX	4750	MIN	10	CFSM .84	IN	11.43

KENTUCKY RIVER BASIN

03284000 KENTUCKY RIVER AT LOCK 10, NEAR WINCHESTER, KY

LOCATION.--Lat 37°53'41", long 84°15'44", Madison County, Hydrologic Unit 05100205, on left bank at lock 10, 0.9 mi downstream from Otter Creek, 8.0 mi southwest of Winchester, and at mile 176.4.

DRAINAGE AREA.--3,955 mi².

PERIOD OF RECORD.--October 1907 to current year.

REVISED RECORDS.--WSP 1275: 1908-52. 1955: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 557.37 ft Ohio River datum. Feb. 2, 1940, to Aug. 10, 1943, water-stage recorder 1.1 mi upstream at different datum. Aug. 11, 1943, to June 12, 1978, nonrecording gage at present site and datum. Auxiliary gage is upper nonrecording gage at lock 9, at Valley View, 18.9 mi downstream.

REMARKS.--Estimated daily discharges: Apr. 8-15. Records good above 1,000 ft³/s and fair below. Flow regulated since January 1976 by Carr Fork Lake (station 03277446), since December 1960 by Buckhorn Lake (station 03280800). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--79 years, 5,226 ft³/s, 17.94 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 101,000 ft³/s, Dec. 10, 1978; gage height, 40.15 ft, from high-water mark; minimum, less than 10 ft³/s, estimated in October 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43,700 ft³/s, Feb. 19, gage height, 20.17 ft, minimum daily, 131 ft³/s, Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	941	30300	1400	3160	7680	1880	986	1190	148	188	240
2	356	929	15500	1350	3240	6870	1770	958	924	182	194	279
3	1220	1320	10000	1360	8630	5970	1690	901	751	340	153	657
4	1630	2640	8340	1380	19500	5440	1610	826	652	443	143	2080
5	1130	6630	7390	1320	21300	4990	1540	759	600	374	143	2080
6	827	14400	6820	1230	17700	4490	1460	724	547	291	142	1460
7	661	13800	6430	1140	20000	3970	1400	673	523	242	142	1230
8	531	9530	5530	1050	19600	3680	1250	695	593	212	141	1070
9	454	6770	4050	922	16700	3280	1200	709	1360	193	135	792
10	407	4680	2820	784	12600	3010	1150	703	2110	204	131	589
11	366	3170	2560	743	9830	3190	1100	655	2160	182	138	463
12	328	2600	3260	730	7580	3540	1050	613	1840	207	142	593
13	275	2180	4760	752	6110	12100	1000	670	1560	1250	145	561
14	255	1840	12900	819	5190	10800	950	1180	1210	1800	168	514
15	276	1650	13500	788	4800	9170	900	1810	919	1470	213	619
16	461	2160	9700	787	4860	10900	860	2520	704	971	272	599
17	799	3240	7420	786	13900	13400	852	2610	564	936	308	491
18	890	2390	6010	825	30700	11900	849	2090	451	789	311	423
19	771	2120	4720	1020	38800	9920	818	1590	367	595	295	393
20	671	1960	3780	2790	36000	7580	819	1330	305	439	411	387
21	779	1810	3280	4940	27300	5960	1020	1220	254	344	394	407
22	4150	2060	2770	4680	18400	4970	1300	1070	222	330	430	454
23	6820	4150	2530	4430	13300	4040	1380	964	203	319	604	514
24	3850	4440	2520	4140	10800	3600	1310	838	193	294	535	949
25	2810	3280	2510	3870	9580	3280	1200	724	183	265	430	1660
26	2390	3050	2160	3670	9000	2890	1070	672	177	240	360	2140
27	2010	12700	1830	3640	8410	2730	997	890	173	223	335	1940
28	1590	30100	1700	3420	8030	2720	944	2270	160	213	283	1440
29	1340	38400	1680	2980	---	2530	955	2350	152	213	259	1070
30	1210	39200	1590	3000	---	2300	997	1840	146	204	241	815
31	1070	---	1500	3070	---	2080	---	1550	---	193	226	---
TOTAL	40566	224140	189860	63816	405020	178980	35321	37390	21193	14106	8012	26909
MEAN	1309	7471	6125	2059	14470	5774	1177	1206	706	455	258	897
MAX	6820	39200	30300	4940	38800	13400	1880	2610	2160	1800	604	2140
MIN	229	929	1500	730	3160	2080	818	613	146	148	131	240

CAL YR 1985 TOTAL 1661336 MEAN 4552 MAX 39200 MIN 175
WTR YR 1986 TOTAL 1245313 MEAN 3412 MAX 39200 MIN 131

03285000 DIX RIVER NEAR DANVILLE, KY

LOCATION.--Lat 37°38'31", long 84°39'39", Garrard County, Hydrologic Unit 05100205, on right bank 50 ft downstream from bridge on State Highway 52, 1.4 mi downstream from Hanging Fork, 6 mi east of Danville, and at mile 34.6.

DRAINAGE AREA.--318 mi².

PERIOD OF RECORD.--May to August 1905 (gage heights only), October 1942 to current year. Published as "Dicks River," 1905.

REVISED RECORDS.--WSP 1555: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 750.10 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 16, 1942, nonrecording gage at same site and datum. May to August 1905, nonrecording gage at site 6 mi downstream at different datum. Auxiliary nonrecording gage at site 2 mi downstream from base gage read during periods of possible backwater.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 18, Jan. 28, 29, Feb. 10-14. Records fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--44 years, 461 ft³/s, 19.69 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,400 ft³/s, Dec. 9, 1978, gage height, 21.81; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 13	1000	*7,950	*9.29				

No flow, Aug. 6-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	124	722	68	71	257	95	36	57	.47	1.1	17
2	126	96	676	70	478	230	89	32	40	1.5	.78	18
3	86	86	455	68	2120	219	82	25	32	17	.47	23
4	60	186	351	70	2350	205	76	23	26	12	.24	46
5	43	319	296	64	1170	189	70	22	23	7.3	.10	66
6	28	254	255	50	919	178	66	19	22	5.8	.00	67
7	21	184	213	51	2000	170	64	18	23	3.4	.00	72
8	17	149	183	39	1150	151	62	17	26	5.1	.00	41
9	14	124	163	35	779	136	57	15	230	6.0	.00	26
10	12	101	144	33	574	134	51	13	203	5.0	.00	19
11	9.4	84	137	31	462	217	47	19	129	3.0	.00	14
12	6.5	72	349	39	358	278	45	19	163	1.8	.00	156
13	5.5	66	760	43	316	5120	45	15	157	4.3	.00	173
14	4.3	68	1200	35	374	2440	40	13	79	10	.00	79
15	3.1	74	651	32	400	1100	39	15	51	637	.00	41
16	2.1	197	451	30	604	710	37	56	35	291	.00	24
17	2.0	1160	354	37	3350	505	37	98	25	101	.00	17
18	2.2	449	278	42	4830	390	38	54	18	51	.00	13
19	3.1	278	175	49	1760	813	36	34	14	30	.24	12
20	5.0	205	151	205	1060	623	39	22	11	19	1670	18
21	6.9	163	111	217	765	410	51	17	8.9	13	450	21
22	31	141	153	160	566	321	102	14	7.3	9.9	91	15
23	78	223	153	137	448	271	104	13	6.4	7.5	54	280
24	63	174	133	109	386	230	76	11	5.2	6.3	34	2040
25	152	141	118	94	378	198	59	10	2.9	5.5	22	450
26	112	129	99	96	325	174	50	11	1.9	3.4	17	201
27	70	2280	90	87	314	160	45	15	1.3	3.5	19	240
28	50	3280	74	71	301	145	41	542	.86	3.6	23	118
29	44	2340	59	54	---	132	37	222	.72	2.5	19	75
30	207	1100	45	55	---	119	36	128	.49	1.7	21	56
31	201	---	59	70	---	106	---	88	---	1.1	18	---
TOTAL	1478.1	14247	9058	2241	28608	16331	1716	1636	1399.97	1269.67	2440.93	4438
MEAN	47.7	475	292	72.3	1022	527	57.2	52.8	46.7	41.0	78.7	148
MAX	207	3280	1200	217	4830	5120	104	542	230	637	1670	2040
MIN	2.0	66	45	30	71	106	36	10	.49	.47	.00	12
CFSM	.15	1.49	.92	.23	3.21	1.66	.18	.17	.15	.13	.25	.47
IN	.17	1.67	1.06	.26	3.35	1.91	.20	.19	.16	.15	.29	.52

CAL YR 1985 TOTAL 100579.9 MEAN 276 MAX 3280 MIN 1.3 CFSM .87 IN 11.77
WTR YR 1986 TOTAL 84863.67 MEAN 233 MAX 5120 MIN .00 CFSM .73 IN 9.93

BEST COPY AVAILABLE

03287000 KENTUCKY RIVER AT LOCK 6, NEAR SALVISA, KY

LOCATION.--Lat 37°55'32", long 84°49'17", Woodford County, Hydrologic Unit 05100205, on right bank at lock 6, 1.5 mi upstream from Clear Creek, 2.1 mi east of Salvisa, and at mile 96 2.

DRAINAGE AREA.--5,102 mi^2, of which about 101 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1925 to current year. Prior to October 1953, published as "at lock 6, at Warwick."

REVISED RECORDS.--WSP 1385: 1926-27, 1928(M), 1929, 1931(M), 1932, 1933-34(M), 1935, 1937, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 487.89 ft Kentucky River datum. Prior to November 1934, nonrecording gage at same site and datum. Auxiliary water-stage recorder at lock 5, 14 mi downstream. Prior to Sept. 30, 1981, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 8-9, 24-30, Apr.11 to June 5 and July 14-16. Records good above 1000 ft^3/s and poor below. Flow regulated since January 1976 by Carr Fork Lake (station 03277446), since December 1960 by Buckhorn Lake (station 03280800), since November 1925 by Herrington Lake (station 03286000), and by hydroelectric plant at lock 7. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--61 years, 6,669 ft^3/s, 17.75 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft^3/s, Dec. 10, 1978, gage height, 49.04 ft, from floodmarks; minimum daily, about 15 ft^3/s, Aug. 27, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42,100 ft^3/s, Feb. 19, gage height, 19.82 ft; minimum daily, 111 ft^3/s, Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	495	1820	29800	1680	3160	8580	2690	1070	1550	198	191	258
2	535	1450	24600	1580	3600	7910	2500	980	1280	299	194	274
3	600	1380	15200	1450	8300	7240	2590	920	1000	336	194	322
4	1360	2330	12000	1500	21600	6780	2500	840	860	478	180	1010
5	1670	4220	10700	1480	25200	5960	2110	900	780	502	152	2190
6	1290	10600	9460	1490	22600	5400	1810	930	901	423	124	2160
7	970	15700	7750	1410	23100	5050	1600	930	883	371	123	1500
8	812	12900	6840	1240	23600	4390	1680	810	866	241	140	1240
9	572	8660	5900	1360	20900	3910	1560	720	1110	360	141	1090
10	835	6070	4710	974	17300	3810	1460	680	1740	300	111	893
11	525	4580	3530	805	14000	3950	1350	800	2140	278	146	641
12	402	3650	4580	871	11800	4000	1250	700	2170	599	128	873
13	483	3170	5000	1150	9570	16500	1150	690	1720	1740	124	813
14	1030	2780	10300	1090	7450	21800	1100	1050	1940	2200	199	670
15	860	2570	15900	1150	6190	14900	1050	1500	1410	1900	183	700
16	582	2530	13400	1110	5530	13500	1180	2000	900	1670	169	666
17	628	4440	9710	1130	14700	15100	1220	2500	800	1390	279	645
18	772	4430	7570	1160	32200	14700	1150	2700	1010	1130	311	547
19	887	3450	5950	1250	38700	13700	1050	2000	746	892	301	507
20	1070	3110	4720	1520	38700	12700	1100	1600	671	702	654	590
21	1260	3030	3970	3440	34200	9770	1200	1400	698	615	578	666
22	1490	2810	3450	4960	26000	6580	1300	1200	516	472	456	543
23	3500	2960	3030	4720	18600	5320	1450	1100	430	411	503	650
24	5600	4550	2740	4410	14900	4710	1450	1000	343	361	601	1380
25	4100	4780	2710	4210	12700	4370	1600	920	298	384	520	1680
26	3000	4020	2640	3950	10800	4060	1300	1000	240	338	501	1950
27	2500	10800	2330	4100	9790	3780	1200	1200	213	396	381	2370
28	2050	25800	2040	3900	9130	3200	1070	1400	264	325	286	2120
29	1800	28500	1880	3470	---	2880	1000	2000	204	258	284	1490
30	2000	28800	1830	3080	---	2760	1050	2700	182	234	241	1130
31	2190	---	1730	3050	---	2810	---	2300	---	205	190	---
TOTAL	45868	215890	235970	68690	484320	240120	44720	40540	27865	20008	8585	31568
MEAN	1480	7196	7612	2216	17300	7746	1491	1308	929	645	277	1052
MAX	5600	28800	29800	4960	38700	21800	2690	2700	2170	2200	654	2370
MIN	402	1380	1730	805	3160	2760	1000	680	182	198	111	258

CAL YR 1985	TOTAL	2001748	MEAN	5484	MAX	31900	MIN 164
WTR YR 1986	TOTAL	1464144	MEAN	4011	MAX	38700	MIN 111

03287500 KENTUCKY RIVER AT LOCK 4, AT FRANKFORT, KY

LOCATION.--Lat 38°12'06", long 84°52'54", Franklin County, Hydrologic Unit 05100205, on left bank at downstream side of Broadway Street Bridge at Frankfort, 300 ft upstream from Benson Creek, 0.8 mi upstream from lock 4, and at mile 65.8. Records include flow of Benson Creek.

DRAINAGE AREA.--5,411 mi², (includes that of Benson Creek), of which about 120 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--March 1905 to July 1906 (gage heights only), October 1925 to current year. Monthly discharge only October 1930 to February 1931, October, November 1931, and May to September 1932, published in WSP 1305. Gage-height records collected in this vicinity September 1887 to December 1889, January to May 1893, and since April 1901 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 1113: 1941-42. WSP 1385: 1926-27, 1929(M), 1932-33, 1935-37, 1938(M), drainage area. WSP 1555: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 462.10 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 27, 1939, nonrecording gage at lock 4, 0.9 mi downstream at same datum. Auxiliary water-stage recorder at lock 5, at Tyrone, 16.3 mi upstream. Prior to Jan. 28, 1982, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 21-22, 25-26 and Jan. 8-10. Records good above 1,000 ft³/s and poor below. Flow regulated since January 1976 by Carr Fork Lake (station 03277446), since December 1960 by Buckhorn Lake (station 03280800), since November 1925 by Herrington Lake (station 03286000), and by hydroelectric plant at lock 7. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--61 years, 7,030 ft³/s, 17.64 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 118,000 ft³/s, Dec. 9, 1978; maximum gage height, 48.47 ft, Dec. 10, 1978; minimum daily discharge about 15 ft³/s, Sept. 10, 11, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45,200 ft³/s, Nov. 30, maximum gage height, 19.23 ft, Dec.1; minimum daily discharge, 180 ft³/s, Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	336	1980	43600	1730	3130	8860	2790	1120	1790	187	268	291
2	574	1660	31000	1640	3400	8320	2340	1060	1490	431	236	432
3	525	1650	16100	1540	7060	7600	2510	1020	1150	376	231	416
4	998	2580	12300	1570	19500	7210	2450	895	938	409	219	607
5	1530	4310	11000	1550	26200	6300	2180	948	883	519	196	1830
6	1340	8950	9930	1510	23500	5660	1780	973	960	488	186	2150
7	955	14600	8360	1450	22800	5210	1610	962	1130	419	190	1580
8	828	13400	7210	1400	22700	4710	1630	860	1170	356	184	1250
9	709	9780	6240	1280	20500	4010	1520	772	1050	1780	208	1120
10	543	7060	4990	1210	17000	3720	1430	759	1650	4940	213	887
11	709	5140	3910	1050	14200	4000	1390	816	2120	777	209	665
12	339	6360	5210	995	12100	6150	1320	773	2100	1040	192	820
13	408	3890	5550	945	10200	20300	1200	714	1860	1610	180	809
14	682	3150	9160	957	8220	23000	1080	1030	1890	1700	182	685
15	1130	2750	14900	975	7020	15500	1100	1270	1480	3220	261	633
16	624	4020	13800	951	6070	13400	1240	1890	1150	2300	235	594
17	599	5070	10800	974	13200	14300	1300	2370	887	1630	259	640
18	714	5290	8530	1020	28400	14300	1130	2600	810	1320	354	574
19	678	4190	6940	1120	41400	14400	1100	2240	618	1060	392	512
20	985	3390	5510	1480	44000	13300	1180	1770	530	857	562	597
21	1260	3330	4400	2830	38700	10700	1270	1480	650	675	658	669
22	1440	2990	3700	5000	27000	7560	1460	1280	478	607	562	570
23	4290	2990	3320	4920	18600	5960	1530	1120	358	496	541	547
24	8040	4660	2920	4580	14800	5100	1510	1060	319	454	631	1070
25	5180	5170	2810	4330	12800	4690	1630	946	266	426	624	1600
26	3620	4940	2780	4030	10900	4280	1320	1030	241	441	553	1790
27	2710	12300	2500	1050	10200	4060	1240	1260	196	439	491	2120
28	2210	26900	2130	3860	9380	3450	1140	1440	232	413	415	2260
29	2290	41300	1940	3680	---	2940	1080	2180	215	344	359	1600
30	2300	44800	1890	3260	---	2780	1090	2930	199	297	318	1180
31	2420	---	1800	3160	---	2610	---	2420	---	290	306	---
TOTAL	50966	258600	265230	66047	492980	254390	45550	41988	28810	30301	10415	30498
MEAN	1644	8620	8556	2131	17610	8206	1518	1354	960	977	336	1017
MAX	8040	44800	43600	5000	44000	23000	2790	2930	2120	4940	658	2260
MIN	336	1650	1800	945	3130	2610	1080	714	196	187	180	291

CAL YR 1985 TOTAL 2101661 MEAN 5758 MAX 44800 MIN 231
WTR YR 1986 TOTAL 1575775 MEAN 4317 MAX 44800 MIN 180

03289000 SOUTH ELKHORN CREEK AT FORT SPRING, KY

LOCATION.--Lat 38°02'35", long 84°37'35", Fayette County, Hydrologic Unit 05100205, on downstream side of bridge on Fort Spring Road At U.S. Highway 60 at Fort Spring, 1.7 mi upstream from Shannon Run, 6.5 mi west of Lexington, and at mile 42.6.

DRAINAGE AREA --24.0 mi², of which about 3 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--March 1950 to current year.

REVISED RECORDS.--WSP 1275: 1951-52. WSP 1505: Drainage area. WSP 1625: 1951-52(P).

GAGE.--Water-stage recorder. Datum of gage is 834.25 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 12, 1952, and Feb. 18 to Nov. 16, 1965, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--36 years, 32.2 ft³/s, 18.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s, May 1, 1983, gage height, 9.12 ft; maximum gage height, 12.13, ft Sept. 21, 1979 (backwater from bridge construction), discharge not determined; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 27	0030	*911	*6.77	No other peak greater than base discharge.			

Minimum discharge, 1.8 ft³/s, Aug. 31 and Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	13	75	9.0	8.0	19	14	7.0	6.3	10	4.0	2.1
2	9.5	13	55	8.4	11	18	13	7.5	5.6	60	3.3	2.5
3	6.4	25	42	8.4	54	17	13	6.2	5.1	18	3.2	3.3
4	5.4	36	36	8.4	114	16	13	6.1	4.5	10	3.1	2.8
5	5.2	30	31	8.0	101	15	12	6.0	5.2	8.2	2.5	3.2
6	4.8	24	26	7.8	88	15	12	5.6	7.0	7.3	2.5	2.4
7	4.3	19	23	7.4	99	14	13	5.7	17	6.9	4.6	2.1
8	3.7	15	20	7.2	80	13	9.9	16	9.8	5.8	6.6	2.4
9	3.5	14	18	7.2	63	13	9.6	8.0	7.0	9.1	3.2	2.6
10	3.9	12	17	7.1	50	16	9.6	7.2	6.0	43	3.1	2.4
11	4.6	11	45	6.9	43	40	9.4	6.8	5.0	31	8.7	2.3
12	4.7	18	74	7.1	36	49	8.8	6.5	7.1	20	4.1	18
13	4.9	16	75	6.7	30	259	8.2	6.9	4.9	26	3.0	4.1
14	37	14	74	7.2	30	143	8.0	26	4.2	27	3.2	2.8
15	38	13	60	6.7	26	91	10	14	4.0	34	2.6	2.5
16	19	46	48	6.6	36	66	8.5	9.6	3.9	20	2.2	2.3
17	11	43	39	6.7	152	50	8.9	7.9	3.5	13	2.6	2.2
18	9.4	29	29	6.7	120	42	7.8	6.9	3.4	9.1	4.0	2.1
19	8.2	22	24	11	85	97	7.1	6.6	3.2	6.9	2.6	2.2
20	10	19	22	12	62	69	11	6.1	3.2	7.1	3.0	6.8
21	37	17	19	10	48	54	23	5.6	3.1	19	2.8	4.1
22	18	16	18	9.1	40	45	20	5.3	3.0	7.4	2.3	3.0
23	24	14	17	8.6	33	37	11	5.1	3.2	5.7	2.3	5.0
24	49	13	16	8.2	32	30	9.4	4.8	3.1	4.9	3.3	7.3
25	25	12	13	8.2	27	26	8.5	4.5	2.5	4.3	2.5	3.9
26	18	109	13	8.6	25	23	7.8	7.6	2.6	4.1	2.2	3.0
27	14	362	12	8.3	24	21	7.6	30	2.8	4.0	3.6	2.6
28	11	227	10	7.7	21	20	7.0	10	2.9	3.9	2.7	2.5
29	9.9	155	9.9	8.4	---	18	7.3	14	3.8	3.5	2.3	2.6
30	20	99	9.5	7.9	---	17	6.6	12	3.3	3.4	2.1	2.6
31	15	---	9.6	7.7	---	14	---	8.0	---	3.4	2.0	---
TOTAL	453.4	1456	980.0	249.2	1538.0	1367	315.0	279.5	146.2	436.0	100.2	107.7
MEAN	14.6	48.5	31.6	8.04	54.9	44.1	10.5	9.02	4.87	14.1	3.23	3.59
MAX	49	362	75	12	152	259	23	30	17	60	8.7	18
MIN	3.5	11	9.5	6.6	8.0	13	6.6	4.5	2.5	3.4	2.0	2.1
CFSM	.61	2.02	1.32	.33	2.29	1.84	.44	.38	.20	.59	.13	.15
IN	.70	2.26	1.52	.39	2.38	2.12	.49	.43	.23	.68	.16	.17

CAL YR 1985	TOTAL	9701.4	MEAN	26.6	MAX	362	MIN	3.1	CFSM 1.11	IN	15.04
WTR YR 1986	TOTAL	7428.2	MEAN	20.4	MAX	362	MIN	2.0	CFSM .85	IN	11.51

03289300 SOUTH ELKHORN CREEK NEAR MIDWAY, KY

LOCATION.--Lat 38°08'27", long 84°38'43", Scott County, Hydrologic Unit 05100205, on right bank 5 ft upstream from bridge on U.S. Route 62/421, 2.2 mi southeast of Midway, 6.5 mi downstream from Town Branch, and at mile 27.6.

DRAINAGE AREA.--105 mi^2.

PERIOD OF RECORD.--September 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 790 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Aug. 26 to Sept. 30. Records good except for estimated daily discharges, which are fair. Water is diverted from the Kentucky River, for use by the city of Lexington, and is discharged into Town Branch at a site 17 mi above gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,760 ft^3/s, May 2, 1983, gage height, 19.63 ft; minimum daily discharge, 15 ft^3/s, Oct. 2, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	0700	*1,350	*10.33	No other peak greater than base discharge.			

Minimum daily discharge, 27 ft^3/s, June 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	80	326	61	44	105	75	44	52	30	46	31
2	93	84	272	58	51	98	73	47	50	56	38	40
3	68	150	215	58	101	95	70	37	49	300	36	52
4	44	210	183	56	286	92	68	32	44	121	35	44
5	40	175	164	51	314	88	67	32	48	72	34	96
6	34	140	148	50	279	89	68	33	59	53	32	46
7	32	125	130	50	342	84	80	32	82	46	39	38
8	33	105	119	46	294	76	63	72	71	44	128	35
9	39	90	112	47	251	73	58	47	51	44	55	37
10	38	83	105	47	218	74	57	35	48	78	41	37
11	38	80	133	44	196	156	54	31	45	221	73	37
12	37	140	276	44	167	176	53	41	62	139	53	161
13	37	101	271	43	149	699	52	41	66	173	41	77
14	195	82	296	43	138	558	50	195	50	142	38	51
15	205	71	262	42	129	388	60	124	41	228	37	44
16	90	154	229	41	126	289	51	85	37	151	34	43
17	63	216	199	43	392	232	53	67	35	120	43	40
18	56	156	167	41	446	195	47	57	36	85	57	40
19	53	126	143	61	354	342	46	51	33	70	42	42
20	64	108	131	79	284	285	65	49	32	60	41	124
21	175	95	120	63	237	240	125	46	32	217	40	75
22	100	86	107	57	195	200	120	44	30	96	38	43
23	160	78	103	53	168	175	65	41	29	73	38	38
24	230	68	98	53	166	160	52	39	28	61	37	67
25	165	63	85	50	150	145	47	38	31	55	35	47
26	110	114	74	50	134	140	45	41	29	49	39	39
27	83	999	79	45	130	125	40	157	28	44	102	36
28	70	730	74	45	115	100	41	81	27	43	52	31
29	63	603	68	47	---	94	45	82	28	43	43	30
30	125	423	64	47	---	85	39	83	37	40	36	31
31	93	---	65	46	---	77	---	64	---	39	32	---
TOTAL	2757	5735	4818	1561	5856	5735	1829	1868	1290	2993	1435	1552
MEAN	88.9	191	155	50.4	209	185	61.0	60.3	43.0	96.5	46.3	51.7
MAX	230	999	326	79	446	699	125	195	82	300	128	161
MIN	32	63	64	41	44	73	39	31	27	30	32	30
CFSM	.85	1.82	1.48	.48	1.99	1.76	.58	.57	.41	.92	.44	.49
IN	.98	2.03	1.71	.55	2.07	2.03	.65	.66	.46	1.06	.51	.55

CAL YR 1985 TOTAL 47534 MEAN 130 MAX 999 MIN 25 CFSM 1.24 IN 16.84
WTR YR 1986 TOTAL 37429 MEAN 103 MAX 999 MIN 27 CFSM .98 IN 13.26

03290500 KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY

LOCATION.--Lat 38°26'20", long 84°57'48", Henry County, Hydrologic Unit 05100205, on left bank at lock 2 at Lockport, 0.1 mi downstream from Sixmile Creek and at mile 31.0.

DRAINAGE AREA.--6,180 mi^2, of which about 196 mi^2 does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1925 to current year. Monthly discharge only for some periods, published in WSP 1305. Monthly discharge only for June to September 1930, published in WSP 1305; figures of daily discharge published in WSP 698 are unreliable.

REVISED RECORDS.--WSP 1385: 1926-29, 1932, 1934-37, 1945. WSP 1555: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 433.36 ft above National Geodetic Vertical Datum of 1929. Prior to August 29, 1975, nonrecording gage at same site and datum. Auxiliary nonrecording gage at lock 3, 11.0 mi upstream.

REMARKS.--Estimated daily discharges Dec. 25. Records good. Flow regulated by Carr Fork Lake beginning January 1976 (station 03277446), Buckhorn Lake beginning December 1960 (station 03280800), Herrington Lake beginning November 1925 (station 03286000), and by hydroelectric plant at lock 7.

COOPERATION.--Auxiliary gage readings furnished by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--61 years, 8,225 ft^3/s, 18.07 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 123,000 ft^3/s, Jan. 26, 1937; maximum gage height, 56.85 ft Jan. 24, 1937 (backwater from Ohio River); minimum daily discharge, about 80 ft^3/s, Oct. 29, 1941, probably lower during 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 49,600 ft^3/s, Dec. 1; maximum gage height, 28.16 ft, Dec. 1;minimum daily discharge, 276 ft^3/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	463	2360	49100	1980	3100	8940	3120	1630	2210	344	389	412
2	622	2030	42500	1920	3260	8320	2760	1600	1790	788	377	577
3	741	1970	22100	1850	5080	7550	2810	1540	1500	1010	362	749
4	911	2910	15400	1810	18800	7170	2810	1450	1300	924	351	648
5	1480	3970	14000	1830	31000	6440	2620	1370	1230	845	328	1430
6	1560	6960	10500	1780	27800	5750	2300	1360	1390	794	296	2140
7	1220	14900	8710	1600	29200	5250	2160	1430	1790	700	276	1820
8	1040	15200	7110	1520	28700	4940	2060	1320	1750	619	286	1410
9	939	10800	6330	1520	27500	4220	2090	1220	1620	565	311	1240
10	762	7130	5440	1460	21700	3980	1990	1150	1690	6090	380	1080
11	896	5380	4750	1210	17100	4350	1880	1170	2140	2060	354	913
12	606	11600	6150	1180	15200	7900	1840	1200	2290	1360	291	955
13	536	5540	6550	1200	11300	30100	1750	1250	2200	2120	279	1020
14	686	3740	8580	1310	8800	29900	1700	2840	1930	1920	289	997
15	1280	4110	14500	1210	7330	19600	1590	1970	1820	3540	329	834
16	1040	9100	15600	1150	6080	16400	1670	2160	1470	3090	360	796
17	925	6290	13000	1250	13400	17100	1870	2580	1200	2200	352	781
18	907	6080	9070	1270	26900	17500	1770	2780	1070	1680	413	824
19	904	4990	7030	1770	39700	14300	1680	2660	975	1370	452	754
20	1590	3820	5660	2160	46000	15600	1710	2230	834	1130	534	942
21	1850	3480	4410	2570	44700	13500	1940	1870	843	955	764	1060
22	1670	3160	3760	4530	34200	9150	2120	1620	778	922	700	923
23	2780	2980	3610	4860	22300	6810	2300	1480	598	798	644	780
24	7460	3650	3230	4520	16200	5660	2240	1380	518	689	657	903
25	5770	4650	2960	4260	15100	5250	2210	1350	440	602	742	1500
26	3970	4490	2890	3890	12200	4720	2160	1530	419	551	679	1710
27	2980	12600	2820	3860	10800	4440	1890	2610	387	542	691	1970
28	2500	28500	2440	3830	9570	3920	1810	2030	374	516	538	231[illegible]
29	2350	43400	2230	3480	---	3360	1710	2280	381	465	498	1830
30	2520	48200	2090	3080	---	3160	1650	3000	363	415	437	1370
31	2620	---	2150	3020	---	2950	---	2740	---	400	422	---
TOTAL	55578	283990	304670	72880	553020	298230	62240	56800	37300	40004	13781	34678
MEAN	1793	9466	9828	2351	19750	9620	2075	1832	1243	1290	445	1156
MAX	7460	48200	49100	4860	46000	30100	3120	3000	2290	6090	764	2310
MIN	463	1970	2090	1150	3100	2950	1590	1150	363	344	276	412

CAL YR 1985 TOTAL 2396466 MEAN 6566 MAX 49100 MIN 242
WTR YR 1986 TOTAL 1813171 MEAN 4968 MAX 49100 MIN 276

03290500 KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to current year.
WATER TEMPERATURES: January 1973 to current year.
REMARKS.--Flow regulated by Buckhorn Lake, Herrington Lake, and hydroelectric plant at lock 7.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 581 microsiemens, Aug. 16, 1985; minimum daily, 100 microsiemens, Sept. 23, 1973.
WATER TEMPERATURES: Maximum daily, 33.0°C, Aug. 10, 11, 1980; minimum daily, 0.0°C, on several days during winters.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 550 microsiemens, July 6-9, minimum daily, 213 microsiemens, Dec. 2.
WATER TEMPERATURES: Maximum daily, 30.0°C, June 23, July 8, 19; minimum daily, 2.0°C, Jan 8, 9, 28, 29.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (FT^{3}/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	BAROMETRIC PRESSURE (MM OF HG)	TURBIDITY (NTU)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 1985											
02...	1130	661	20.0	420	7.70	7.0	78	751	5.0	K5	K9
DEC											
17...	1130	13200	6.0	320	7.00	11.0	90	746	60	420	360
FEB 1986											
05...	1230	35600	8.0	360	7.70	8.5	74	740	150	1100	3400
APR											
08...	1030	1950	16.0	330	7.80	7.4	77	740	12	K22	--
JUN											
04...	1045	1270	24.0	450	7.90	7.3	89	746	8.5	--	--
AUG											
27...	1200	660	26.0	435	8.40	6.6	83	746	4.1	--	--

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICARBONATE IT-FLD (MG/L AS HCO3)	ALKALINITY, CARBONATE IT-FLD (MG/L - CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 1985											
02...	150	55	43	11	21	3.3	98	--	--	50	41
DEC											
17...	150	59	45	8.7	8.1	2.4	89	109	89	47	16
FEB 1986											
05...	130	58	39	8.7	13	2.4	75	--	--	48	24
APR											
08...	140	50	41	9.2	8.1	2.0	91	111	91	44	12
JUN											
04...	170	78	47	13	19	2.8	95	114	93	74	33
AUG											
27...	170	54	49	11	22	3.9	113	139	114	56	32

03290500 KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)
OCT 1985 02...	<0.1	5.6	245	0.66	0.16	0.4	0.10	0.09	30	<1	70
DEC 17...	<1.0	6.5	188	1.50	0.08	0.7	0.22	0.08	20	<1	37
FEB 1986 05...	0.1	5.4	194	1.40	0.13	1.3	0.48	0.11	--	--	--
APR 08...	0.1	5.1	187	1.20	0.02	0.5	0.11	0.08	20	<1	33
JUN 04...	0.2	1.9	266	0.68	0.06	0.6	0.17	0.10	--	--	--
AUG 27...	0.3	1.1	260	0.28	0.10	0.8	0.13	0.05	--	--	--

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
OCT 1985 02...	2	<1	<1	<3	3	9	4	7	39	<0.1
DEC 17...	<0.5	<1	<1	<3	2	12	1	4	4	<0.1
FEB 1986 05...	--	--	--	--	--	--	--	--	--	--
APR 08...	1	1	<1	<3	1	7	2	6	38	<0.1
JUN 04...	--	--	--	--	--	--	--	--	--	--
AUG 27...	--	--	--	--	--	--	--	--	--	--

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1985 02...	<10	1	<1	<1	470	<6	9	15	27	100
DEC 17...	<10	<1	<1	<1	210	<6	11	107	3810	100
FEB 1986 05...	--	--	--	--	--	--	--	328	31500	100
APR 08...	<10	<1	<1	<1	190	<6	<3	11	58	100
JUN 04...	--	--	--	--	--	--	--	21	72	100
AUG 27...	--	--	--	--	--	--	--	6	11	100

03290500 KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	218	---	461	275	---	344	---	529	---	---
2	420	485	213	313	461	286	352	350	---	539	430	429
3	414	490	---	313	461	286	---	344	435	539	425	429
4	534	490	245	302	---	306	---	350	---	529	425	473
5	540	---	278	302	360	296	---	339	435	545	---	459
6	441	---	267	---	332	316	---	329	435	550	---	473
7	441	---	---	307	---	316	---	376	529	550	---	450
8	518	---	278	318	337	---	330	376	440	550	---	439
9	518	469	283	318	286	316	---	376	---	550	---	461
10	403	447	283	286	275	---	---	376	435	531	---	461
11	518	---	316	286	286	316	313	---	435	515	425	461
12	534	371	305	318	286	326	313	---	440	---	430	429
13	425	---	294	318	286	214	313	---	440	---	---	429
14	463	463	327	318	296	337	---	344	529	310	---	429
15	518	469	327	318	296	352	313	355	470	363	---	429
16	540	349	327	344	296	337	313	---	452	370	---	473
17	534	338	302	344	296	362	313	355	495	370	---	461
18	---	360	344	339	326	362	323	---	505	370	420	450
19	---	349	350	344	326	---	323	---	490	370	413	473
20	---	---	344	350	326	362	334	366	505	425	401	---
21	534	371	387	350	---	---	334	376	495	425	---	420
22	---	---	387	360	214	---	339	385	515	425	---	---
23	---	349	355	339	245	---	334	381	495	413	---	---
24	---	382	---	344	316	---	334	425	539	401	---	---
25	---	---	---	366	265	362	360	408	515	401	---	---
26	---	338	376	355	286	362	360	408	515	401	---	---
27	---	338	408	360	296	---	360	408	521	401	435	---
28	---	---	344	413	296	---	344	408	---	401	---	---
29	490	---	318	403	---	---	355	408	539	401	---	---
30	490	349	---	424	---	---	344	401	529	---	---	420
31	---	---	---	440	---	---	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	20.0	13.0	---	4.0	9.0	---	17.0	24.0	29.0	---	---
2	---	18.0	13.0	5.0	4.0	9.0	14.0	17.0	24.0	29.0	29.0	24.0
3	25.0	18.0	---	5.0	5.0	9.0	---	18.0	24.0	29.0	29.0	24.0
4	25.0	18.0	9.0	5.0	---	7.0	---	18.0	24.0	29.0	27.0	24.0
5	25.0	21.0	9.0	5.0	---	7.0	---	18.0	24.0	29.0	---	24.0
6	---	21.0	9.0	---	8.0	7.0	---	20.0	24.0	29.0	---	24.0
7	---	19.0	---	3.0	---	7.0	---	20.0	26.0	29.0	---	24.0
8	25.0	19.0	12.0	2.0	8.0	---	16.0	20.0	26.0	30.0	---	24.0
9	25.0	19.0	13.0	2.0	8.0	7.0	---	21.0	26.0	29.0	---	25.0
10	---	19.0	10.0	3.0	8.0	---	---	21.0	26.0	28.0	---	25.0
11	25.0	---	10.0	3.0	7.0	7.0	16.0	---	26.0	28.0	24.0	25.0
12	25.0	15.0	10.0	3.0	6.0	8.0	16.0	---	26.0	---	24.0	24.0
13	25.0	15.0	10.0	3.0	6.0	8.0	16.0	---	26.0	---	---	24.0
14	25.0	18.0	8.0	3.0	6.0	10.0	---	21.0	---	26.0	---	24.0
15	25.0	18.0	8.0	3.0	6.0	10.0	15.0	21.0	26.0	26.0	---	24.0
16	25.0	18.0	8.0	4.0	5.0	10.0	14.0	---	26.0	26.0	---	24.0
17	25.0	18.0	6.0	5.0	7.0	10.0	14.0	22.0	28.0	28.0	---	24.0
18	---	18.0	6.0	5.0	10.0	10.0	18.0	---	28.0	28.0	25.0	23.0
19	---	14.0	6.0	4.0	10.0	---	18.0	---	28.0	30.0	25.0	23.0
20	---	---	6.0	4.0	10.0	10.0	18.0	22.0	29.0	28.0	25.0	---
21	25.0	13.0	5.0	3.0	---	---	18.0	21.0	29.0	28.0	---	24.0
22	---	---	5.0	3.0	8.0	---	14.0	21.0	29.0	28.0	---	---
23	---	13.0	5.0	4.0	8.0	---	14.0	21.0	30.0	28.0	---	---
24	---	13.0	---	4.0	8.0	---	15.0	21.0	29.0	26.0	---	---
25	---	---	---	5.0	8.0	11.0	16.0	21.0	29.0	28.0	---	---
26	---	14.0	5.0	5.0	8.0	11.0	16.0	22.0	29.0	28.0	---	---
27	---	13.0	5.0	5.0	8.0	---	18.0	22.0	29.0	28.0	26.0	---
28	17.0	---	4.0	2.0	8.0	---	16.0	22.0	---	28.0	---	---
29	20.0	---	4.0	2.0	---	---	17.0	23.0	28.0	28.0	---	---
30	20.0	13.0	---	4.0	---	---	17.0	23.0	28.0	---	---	24.0
31	20.0	---	---	4.0	---	---	---	---	---	---	---	---

03292460 HARRODS CREEK NEAR LA GRANGE, KY

LOCATION.--Lat 38°25'50", long 85°24'33", Oldham County, Hydrologic Unit 05140101, 10 ft upstream from bridge on State Highway 53, 0.5 mi upstream from Ash Run, 3.1 mi northwest of La Grange and at mile 22.4.

DRAINAGE AREA.--24.1 mi^3.

PERIOD OF RECORD.--December 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 662.64 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 14, 15, 18, 23-25, Jan. 19-22, 25-28 and Feb. 10-13. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--18 years, 38.2 ft^3/s, 21.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,320 ft^3/s, June 20, 1973, gage height, 9.89 ft, from rating curve extended above 2,600 ft^3/s; maximum gage height, 9.93 ft, Sept. 4, 1979; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 6	2130	*2,420	*6.64	No other peaks greater than base discharge.			

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	6.6	30	2.7	6.9	13	5.8	2.8	2.7	.08	.17	.00
2	.11	6.6	36	2.7	28	13	6.2	2.9	2.3	38	.14	.00
3	.07	33	23	2.9	59	13	5.8	2.6	1.6	6.3	.11	.00
4	.04	33	19	2.9	180	11	5.8	2.1	1.0	1.7	.07	.00
5	.00	17	17	2.8	147	11	4.0	1.8	.88	.83	.00	.00
6	.00	8.1	15	2.3	198	11	4.0	2.2	60	.55	.00	.00
7	.00	5.8	11	2.0	252	9.7	4.0	13	55	.34	.00	.00
8	.00	5.0	9.9	1.3	69	7.2	3.3	20	91	.26	.00	.00
9	.00	3.3	8.1	.88	42	7.8	2.5	10	25	.18	.00	.00
10	.00	3.0	6.6	.91	32	7.6	2.5	5.9	13	.30	.11	.00
11	.00	38	100	1.2	19	11	2.4	4.5	8.2	25	1.4	.00
12	.00	591	68	1.5	19	239	2.2	3.5	24	327	.70	.00
13	.00	50	38	1.8	15	364	2.0	4.8	9.5	92	.25	.00
14	.06	31	23	1.6	17	58	2.0	67	5.6	47	.17	.00
15	.11	28	14	1.4	16	34	4.0	34	3.5	100	.13	.00
16	.06	443	17	1.1	38	25	3.3	16	2.4	27	.12	.00
17	.02	64	18	1.7	249	19	3.3	9.0	2.0	9.5	.11	.00
18	.01	37	8.1	4.6	67	19	2.5	7.0	1.2	3.6	.05	.00
19	.01	27	7.8	88	40	69	2.8	8.5	.74	2.1	.00	.00
20	49	21	8.0	50	29	33	28	6.4	.59	1.1	.00	.00
21	23	15	6.3	43	24	23	44	4.8	.52	.72	.00	.00
22	3.3	11	5.8	43	19	17	28	3.0	.38	.48	.00	.00
23	2.0	8.1	4.0	28	16	15	27	2.4	.31	.37	.00	.00
24	11	5.8	2.5	21	29	11	13	1.8	.28	.30	.00	.00
25	5.4	5.0	2.4	15	26	9.9	7.6	1.6	.18	.20	.00	.00
26	2.0	6.6	2.8	11	23	8.1	5.8	32	.16	.20	.00	.00
27	1.2	157	3.3	8.1	22	14	4.0	68	.14	.19	.00	.00
28	1.0	217	3.4	4.3	15	8.1	4.0	23	.12	.14	.00	.00
29	1.0	57	3.1	7.4	---	8.1	7.0	13	.10	.15	.00	.00
30	44	36	2.1	5.6	---	7.1	3.0	7.2	.05	.14	.00	.00
31	19	---	2.6	5.1	---	5.8	---	4.4	---	.15	.00	---
TOTAL	162.51	1969.9	515.8	365.79	1696.9	1102.4	239.8	385.2	312.45	685.88	3.53	.00
MEAN	5.24	65.7	16.6	11.8	60.6	35.6	7.99	12.4	10.4	22.1	.11	.00
MAX	49	591	100	88	252	364	44	68	91	327	1.4	.00
MIN	.00	3.0	2.1	.88	6.9	5.8	2.0	1.6	.05	.08	.00	.00
CFSM	.22	2.73	.69	.49	2.51	1.48	.33	.51	.43	.92	.00	.00
IN	.25	3.04	.80	.56	2.62	1.70	.37	.59	.48	1.06	.01	.00

CAL YR 1985 TOTAL 8854.26 MEAN 24.3 MAX 622 MIN .00 CFSM 1.01 IN 13.67
WTR YR 1986 TOTAL 7440.16 MEAN 20.4 MAX 591 MIN .00 CFSM .85 IN 11.48

BEST COPY AVAILABLE

03293000 MIDDLE FORK BEARGRASS CREEK AT CANNONS LANE, AT LOUISVILLE, KY

LOCATION.--Lat 38°14'14", long 85°39'53", Jefferson County, Hydrologic Unit 05140101, on right bank 75 ft downstream from bridge on old Cannons Lane at Louisville, 1.7 mi downstream from Weicher Creek, 5.4 mi upstream from confluence with South Fork, 7.0 mi upstream from Ohio River, and at mile 5.4.

DRAINAGE AREA.--18.9 mi^2, of which about 0.5 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--August 1944 to current year.

REVISED RECORDS.--WSP 1625: 1945(M), 1948(M), 1950(P), 1951-52(M), 1954-55(M), 1957(M), drainage area. WRD KY 72-1: 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 476.70 ft Louisville city datum. Prior to Mar. 12, 1968, water-stage recorder at same site at datum 1.00 ft higher. Mar. 12, 1968 to July 26, 1971, water-stage recorder at site 1,000 ft upstream at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges: Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--42 years, 25.7 ft^3/s, 18.46 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,200 ft^3/s, Apr. 2, 1970, gage height, 8.3 ft, from floodmark, at present site and datum; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1943 reached a stage of 9.1 ft, present site and datum, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jul. 15	1245	*711	*4.91	No other peak greater than base discharge			

Minimum daily discharge, 0.96 ft^3/s, Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	36	3.2	6.6	11	9.5	7.9	7.6	10	8.7	2.6
2	3.4	11	25	3.0	42	9.9	9.1	7.3	6.8	90	4.3	29
3	2.3	37	19	3.0	39	9.6	8.6	6.8	5.9	13	3.0	8.4
4	1.7	23	17	3.0	76	9.3	8.4	6.7	5.4	8.7	2.1	5.4
5	1.6	15	16	2.7	106	8.7	7.8	6.4	6.7	6.6	1.6	4.0
6	1.4	12	14	2.5	144	10	7.5	73	19	5.3	1.5	3.0
7	1.3	10	11	2.4	111	8.4	6.9	20	43	4.1	1.3	2.2
8	1.1	7.8	11	2.1	61	7.7	6.6	23	22	3.6	1.5	2.3
9	.96	6.9	9.3	2.1	43	7.6	6.4	14	12	10	46	2.1
10	.97	6.1	8.5	2.1	33	65	6.2	12	10	9.9	62	2.3
11	1.0	13	36	2.2	30	32	5.8	11	9.3	5.5	21	14
12	1.2	75	30	2.4	23	134	5.5	27	12	63	8.6	25
13	1.5	24	24	2.1	19	152	5.4	21	6.8	21	6.2	5.9
14	51	18	19	1.9	18	65	9.4	14	5.5	11	5.0	4.2
15	8.9	20	16	2.0	17	45	12	14	4.8	159	4.7	3.5
16	4.4	112	14	1.8	28	34	6.6	11	3.7	26	3.8	3.2
17	2.7	43	13	2.4	64	27	6.1	9.9	6.1	15	3.9	2.8
18	1.9	27	11	6.2	42	30	5.5	12	3.8	10	3.5	24
19	7.0	20	9.0	40	34	38	6.9	9.7	3.3	8.1	2.6	9.9
20	109	18	8.6	22	27	23	20	7.9	2.7	6.5	2.6	44
21	26	14	7.7	16	22	19	25	6.5	2.4	5.3	2.2	13
22	13	12	7.2	13	19	16	14	5.4	2.1	4.2	2.2	8.4
23	24	10	7.0	10	17	16	10	4.9	1.6	4.1	8.3	7.6
24	21	8.8	6.3	9.1	19	14	8.4	4.7	1.8	3.5	8.4	10
25	11	7.8	5.1	8.5	15	13	7.9	7.7	1.7	3.1	1.8	6.5
26	7.8	45	4.7	7.7	14	13	7.7	85	2.9	3.2	11	5.0
27	6.2	77	4.7	6.6	14	16	7.2	33	2.0	2.4	22	4.6
28	4.7	66	4.8	6.0	12	13	6.6	18	3.8	2.9	6.8	4.0
29	8.6	39	4.1	5.9	---	11	6.5	13	1.5	3.7	4.2	3.0
30	51	29	3.5	5.2	---	11	6.5	10	1.4	2.6	2.9	3.2
31	16	---	3.4	5.1	---	9.9	---	9.0	---	8.8	2.1	---
TOTAL	404.63	820.4	405.9	202.2	1095.6	879.1	260.0	511.8	217.6	530.1	265.8	263.1
MEAN	13.1	27.3	13.1	6.52	39.1	28.4	8.67	16.5	7.25	17.1	8.57	8.77
MAX	109	112	36	40	144	152	25	85	43	159	62	44
MIN	.96	6.1	3.4	1.8	6.6	7.6	5.4	4.7	1.4	2.4	1.3	2.1
CFSM	.71	1.48	.71	.35	2.12	1.54	.47	.90	.39	.93	.47	.48
IN	.82	1.66	.82	.41	2.22	1.78	.53	1.03	.44	1.07	.54	.53

CAL YR 1985	TOTAL	6854.51	MEAN	18.8	MAX	247	MIN	.22	CFSM	1.02	IN 13.86
WTR YR 1986	TOTAL	5856.23	MEAN	16.0	MAX	159	MIN	.96	CFSM	.87	IN 11.84

BEARGRASS CREEK BASIN

03293000 MIDDLE FORK BEARGRASS CREEK AT CANNONS LANE AT LOUISVILLE, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-79, 1986.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	PH LAB (STAND-ARD UNITS)	ALKA-LINITY WH WAT TOTAL LAB MG/L AS CACO3	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
FEB 1986										
16...	0955	1070	3.6	5	10	8.00	202	629	84	0.02
16...	1630	968	8.8	5	44	8.00	187	585	92	0.03
16...	2400	868	29	10	15	7.60	137	568	120	0.07
17...	0600	695	66	15	24	7.50	125	564	113	0.08
17...	0825	644	58	15	190	7.50	118	530	114	0.10
17...	1625	628	44	15	10	7.70	139	432	92	0.07
18...	0825	623	14	5	4	7.90	177	392	75	0.05
MAR										
10...	1625	541	5.0	5	79	7.90	170	553	121	0.08
10...	1645	426	320	10	420	7.30	134	1560	214	0.24
10...	1710	408	260	5	280	7.40	145	2160	244	0.32
10...	1750	370	1000	10	330	7.40	83	5320	477	0.27
10...	1845	259	440	50	450	7.20	85	2080	235	0.31
10...	2035	292	320	40	150	7.40	59	2600	247	0.28
10...	2400	285	440	60	140	7.30	82	1090	175	0.24
11...	0620	375	140	20	190	7.50	110	474	115	0.17
11...	1705	500	23	10	45	8.00	160	356	95	0.04

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
FEB 1986									
16...	0.03	0.01	0.01	0.2	0.27	4.00	4.00	0.09	0.07
16...	0.03	0.02	0.02	0.32	0.32	3.70	3.70	0.12	0.10
16...	0.07	0.02	0.02	0.47	0.73	2.80	2.80	0.14	0.10
17...	0.08	0.02	0.02	0.4	1.3	2.60	2.60	0.21	0.10
17...	0.10	0.02	0.02	0.58	1.4	2.40	2.40	0.58	0.09
17...	0.07	0.01	0.02	0.4	1.3	3.10	3.10	0.16	0.09
18...	0.05	0.01	0.01	0.37	0.33	4.20	4.20	0.13	0.09
MAR									
10...	0.07	0.02	0.03	0.44	1.6	2.60	2.60	0.32	0.09
10...	0.26	0.02	0.03	0.72	6.7	2.20	2.20	1.20	0.15
10...	0.36	0.03	0.04	0.97	9.7	1.60	1.60	1.80	0.16
10...	0.26	0.02	0.04	1.2	14	1.40	1.30	5.60	0.13
10...	0.31	0.02	0.04	1.3	8.3	0.92	0.88	1.60	0.13
10...	0.30	0.02	0.06	1.2	6.3	1.40	1.40	1.70	0.12
10...	0.26	0.02	0.04	1.3	5.0	1.80	1.80	0.90	0.10
11...	0.17	0.02	0.04	0.63	1.8	2.60	2.60	0.38	0.11
11...	0.04	0.02	0.02	0.32	0.55	3.60	3.60	0.15	0.10

03293000 MIDDLE FORK BEARGRASS CREEK AT CANNONS LANE AT LOUISVILLE, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
FEB 1986									
16...	0.07	300	0	87	20	100	2.3	50	180
16...	0.08	280	0	81	19	87	2.5	48	160
16...	0.08	220	0	60	16	86	2.8	38	160
17...	0.08	200	0	57	14	57	2.6	37	110
17...	0.07	180	0	50	13	54	2.2	34	100
17...	0.07	210	0	59	15	41	2.3	40	82
18...	0.08	260	0	74	19	26	1.9	46	54
MAR									
10...	0.07	250	0	71	18	18	2.3	48	31
10...	0.11	170	0	48	12	13	2.3	34	22
10...	0.12	120	0	36	8.3	11	2.2	25	19
10...	0.08	99	0	26	5.9	10	1.9	20	14
10...	0.10	49	0	15	2.9	9.0	1.7	12	14
10...	0.10	88	0	24	6.9	8.2	2.4	18	13
10...	0.08	110	0	30	7.7	8.8	2.7	23	14
11...	0.10	160	0	46	11	13	2.6	30	21
11...	0.09	230	0	65	16	15	2.5	41	27

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)
FEB 1986									
16...	1	10	20	10	1	30	10	10	0.07
16...	1	10	300	10	1	40	10	10	0.09
16...	1	10	1100	20	1	20	10	10	0.10
17...	1	10	2600	30	1	10	10	40	0.10
17...	1	10	2500	40	2	10	10	80	0.10
17...	1	10	1400	30	2	20	10	10	0.10
18...	1	10	400	10	1	20	10	10	0.09
MAR									
10...	2	2	10	10	<1	20	10	10	0.09
10...	2	40	28000	30	<1	<10	10	260	0.18
10...	2	30	15000	50	<1	60	10	270	0.22
10...	3	170	10000	60	<1	300	10	680	0.11
10...	3	60	40000	40	<1	20	10	380	0.24
10...	3	50	100000	40	<1	10	10	240	0.30
10...	3	30	20000	80	1	20	10	130	0.17
11...	3	<10	40000	30	<1	<10	10	70	0.18
11...	2	<10	1100	10	1	30	10	30	0.11

OHIO RIVER MAIN STEM

03294500 OHIO RIVER AT LOUISVILLE, KY

LOCATION.--Lat 38°16'49", long 85°47'57", Jefferson County, Hydrologic Unit 05140101, on left bank at downstream end of lock guide wall in lower pool at McAlpine Locks, at Louisville, 5.3 mi downstream from Beargrass Creek and at mile 607.3.

DRAINAGE AREA.--91,170 mi², approximately.

PERIOD OF RECORD.--January 1928 to current year. Prior to October 1935 monthly discharge only, published in WSP 1305. Gage-height records collected in this vicinity since 1871 are published in reports of National Weather Service.

REVISED RECORDS.--WSP 893: 1939.

GAGE.--Water-stage recorder. Datum of gage is 373.18 ft above National Geodetic Vertical Datum of 1929 or 374.00 ft Ohio River datum. Prior to Oct. 1, 1939, and Oct. 1, 1943, to Sept. 30, 1946, various combinations of gages near Louisville were used. Oct. 1, 1939, to Sept. 30, 1943, water-stage recorders at Louisville and Kosmosdale, downstream from McAlpine Dam (4 mi and 20.1 mi, respectively), were used to determine discharge. Oct. 1, 1946, to Sept. 30, 1961, nonrecording gage at site 0.3 mi upstream at same datum. Oct. 1, 1952, to Sept. 30, 1970, upper nonrecording gage at dam 43, 25.9 mi downstream used as an auxiliary gage. Since Oct. 1, 1970, auxiliary water-stage recorder at Kosmosdale, 19.8 mi downstream.

REMARKS.--Estimated daily discharges: Aug. 16-20. Records good except those below 20,000 ft³/s, which are poor. Flow regulated by Ohio River system of locks, dams, and reservoirs.

AVERAGE DISCHARGE.--58 years, 115,800 ft³/s, 17.25 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,110,000 ft³/s, Jan. 26, 27, 1937; maximum gage height, 85.44 ft, Jan. 27, 1937; minimum daily discharge, 2,100 ft³/s, Aug. 12, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 493,000 ft³/s, Dec. 3, maximum gage height, 53.27 ft, Dec. 3; minimum daily, 5,590 ft³/s, Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15400	8930	479000	52700	93900	214000	63000	64600	68100	58200	19900	17100
2	14400	20000	480000	53400	78900	194000	54500	63600	44300	111000	19800	10600
3	13200	32900	493000	50400	83900	169000	60300	53400	30000	159000	23500	18000
4	16100	59600	474000	57300	138000	140000	54300	55200	27500	174000	17900	26600
5	15400	91700	433000	57100	237000	124000	38200	44000	32300	174000	20800	27100
6	13500	182000	370000	49700	314000	110000	43200	29500	35500	151000	23100	40000
7	15800	264000	309000	61600	394000	113000	41800	37500	57400	119000	15800	22700
8	31200	323000	261000	51100	433000	111000	47600	59200	88000	60400	25100	23900
9	14300	354000	224000	45500	441000	111000	50900	65300	92100	33200	21100	18200
10	5590	348000	200000	43000	443000	104000	63000	50900	89600	55200	22100	14500
11	9060	294000	176000	44000	423000	97900	53500	49700	81600	74100	27600	27900
12	13600	254000	202000	40300	368000	129000	57100	41100	93000	88100	32600	36800
13	12600	252000	221000	40800	298000	242000	58800	43600	99300	123000	34500	19200
14	12300	257000	249000	43400	242000	328000	48500	61700	112000	125000	17000	14600
15	8900	261000	285000	43600	209000	326000	48500	105000	124000	123000	21000	18000
16	14800	295000	330000	41400	170000	316000	56400	88500	120000	106000	23900	21200
17	16900	340000	345000	40300	169000	326000	51300	71800	93900	84100	22400	15800
18	12700	322000	317000	35000	228000	355000	55200	64700	70900	60100	22500	13600
19	7080	331000	267000	52900	285000	379000	64900	47100	81800	68300	25400	16300
20	47300	350000	211000	82500	366000	369000	78500	51100	87100	54100	20900	24400
21	89800	333000	174000	114000	396000	325000	89200	63800	68800	40300	15400	16400
22	58800	275000	134000	160000	395000	279000	100000	84200	60000	65300	21700	22400
23	62100	217000	110000	206000	372000	233000	97000	99300	60500	67500	27500	16700
24	47900	186000	94000	237000	343000	196000	107000	99600	41800	78200	15200	20800
25	48100	183000	79400	242000	313000	169000	111000	74800	40900	72300	30900	43700
26	32700	185000	73400	230000	280000	141000	110000	56500	45200	64300	30200	41000
27	23100	220000	82900	208000	259000	112000	97400	48900	21200	47800	18100	45000
28	36300	298000	64300	187000	231000	104000	76200	53200	35500	42100	35800	63200
29	27200	395000	68300	168000	---	89200	50000	56000	44700	30000	20400	59600
30	28900	445000	56400	136000	---	81400	66700	56600	44000	49400	16600	80000
31	15400	---	52200	115000	---	76200	---	56700	---	31600	20000	---
TOTAL	780430	7377130	7314900	2989000	8003700	6063700	1994300	1897100	1991000	2589600	708700	835300
MEAN	25180	245900	236000	96420	285800	195600	66480	61200	66370	83540	22860	27840
MAX	89800	445000	493000	242000	443000	379000	111000	105000	124000	174000	35800	80000
MIN	5590	8930	52200	35000	78900	76200	38200	29500	21200	30000	15200	10600

CAL YR 1985 TOTAL 44021240 MEAN 120600 MAX 493000 MIN 5590
WTR YR 1986 TOTAL 42544860 MEAN 116600 MAX 493000 MIN 5590

03295890 BRASHEARS CREEK AT TAYLORSVILLE, KY

LOCATION.--Lat 38°02'13", long 85°20'27", Spencer County, Hydrologic Unit 05140102, on left bank at downstream side of bridge on State Highway 155, at the north edge of Taylorsville, 1.2 mi upstream from Salt River and at mile 1.2.

DRAINAGE AREA.--259 mi^2.

PERIOD OF RECORD.--July 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 466.85 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 16-31, Jan. 1-30, Feb. 7-8, May 15, Jun. 6-7 and Jul. 3. Records fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft^3/s, May 2, 1983, gage height, 25.07 ft; no flow in most years.

AVERAGE DISCHARGE.--5 years, 289 ft^3/s, 15.15 in/yr.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 13	1300	*9,390	*17.94	No other peak greater than base discharge.			

Minimum daily discharge, 0.41 ft^3/s, Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	73	615	50	84	157	90	23	55	.86	3.4	.94
2	5.5	64	607	46	101	147	83	21	43	9.0	3.5	.62
3	4.9	62	432	42	270	143	76	17	35	38	2.9	.52
4	4.3	168	346	38	946	137	71	16	28	45	2.1	.82
5	2.7	250	300	35	3700	129	66	14	23	26	1.5	12
6	2.1	163	271	33	2280	125	63	13	35	17	1.0	7.9
7	2.1	121	227	31	4400	119	59	12	119	11	.90	4.2
8	2.6	99	196	29	1800	107	56	21	200	8.5	.74	2.5
9	2.7	82	181	27	1040	99	52	35	128	9.1	.46	1.8
10	2.7	68	163	26	693	97	48	33	98	884	.48	1.1
11	2.3	61	166	25	545	94	43	33	62	205	.46	.62
12	1.8	952	645	25	417	789	41	24	47	149	.41	1.3
13	.83	894	665	24	335	7200	39	20	39	222	.42	1.7
14	2.2	484	550	24	339	2560	37	17	35	321	.46	1.7
15	11	339	394	24	307	1250	34	57	30	1210	.77	9.4
16	11	2360	300	23	267	743	34	127	24	447	1.1	8.4
17	7.7	2600	210	23	1330	517	36	82	19	234	1.3	6.1
18	8.4	1050	160	24	1260	402	36	58	14	139	1.6	4.7
19	11	628	130	27	768	616	37	46	12	90	1.8	3.4
20	11	433	150	31	543	499	38	39	8.8	64	2.4	3.6
21	15	332	130	40	417	372	42	34	7.1	48	3.2	3.5
22	83	258	140	70	328	307	54	29	5.9	35	3.7	19
23	65	210	130	64	275	268	62	26	4.9	27	3.2	44
24	56	171	115	58	248	227	53	23	4.1	21	2.6	30
25	63	144	130	50	241	194	44	20	3.3	16	2.5	21
26	54	155	170	45	212	171	39	22	2.9	11	2.1	15
27	42	766	125	70	206	154	34	55	2.4	8.8	7.0	12
28	33	2070	100	110	184	143	31	230	1.6	7.3	7.6	9.4
29	25	1620	75	140	---	126	28	144	1.2	5.9	2.9	8.1
30	24	901	65	110	---	112	25	97	.86	4.8	1.3	7.9
31	31	---	57	94	---	101	---	72	---	3.5	1.1	---
TOTAL	594.43	17578	7945	1458	23536	18105	1451	1460	1088.96	4317.76	64.90	243.22
MEAN	19.2	586	256	47.0	841	584	48.4	47.1	36.3	139	2.09	8.11
MAX	83	2600	665	140	4400	7200	90	230	200	1210	7.6	44
MIN	.83	61	57	23	84	94	25	12	.86	.86	.41	.52
CFSM	.07	2.26	.99	.18	3.25	2.25	.19	.18	.14	.54	.01	.03
IN	.09	2.52	1.14	.21	3.38	2.60	.21	.21	.16	.62	.01	.03

CAL YR 1985 TOTAL 95788.83 MEAN 262 MAX 3140 MIN .83 CFSM 1.01 IN 13.76
WTR YR 1986 TOTAL 77842.27 MEAN 213 MAX 7200 MIN .41 CFSM 82 IN 11.18

03297845 FLOYDS FORK NEAR CRESTWOOD, KY

LOCATION.--Lat 38°17'55", long 85°25'36", Shelby County, Hydrologic Unit 05140101, on left bank at upstream side of bridge on State Highway 1408, 3 mi southeast of Crestwood, 2.8 mi upstream from Curry's Fork, and at mile 50.7.

DRAINAGE AREA.--46.7 mi².

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 616.80 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 15-21, 24-26, Jan. 27, 29-30, Feb. 11-15, June 8-19, July 12-21, and Sept. 9-30. Records good except for periods of estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--7 years, 52.9 ft³/s, 15.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,280 ft³/s, May 1, 1983, gage height, 19.09 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 6	2230	3,040	16.33	Mar. 13	0300	*3,330	*16.98

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	15	94	5.9	15	22	14	2.8	4.9	.41	.31	.04
2	.00	10	104	4.8	62	22	13	2.8	3.4	3.0	.24	.07
3	.00	25	49	6.0	173	23	11	2.1	2.4	3.1	.18	.07
4	.00	71	40	5.8	465	19	11	1.8	1.8	2.5	.12	.05
5	.00	24	36	5.4	816	18	9.6	1.6	1.8	1.6	.11	.03
6	.00	13	33	4.0	796	19	9.1	2.5	6.1	1.3	.10	.00
7	.00	7.4	26	3.2	624	15	9.2	5.8	26	1.0	.10	.00
8	.00	5.2	24	2.2	160	11	8.0	29	35	.84	.11	.00
9	.00	4.2	21	1.5	95	13	6.1	10	14	.78	.12	.04
10	.00	3.4	18	1.4	67	230	5.1	5.2	5.6	69	.22	.03
11	.00	5.3	135	1.7	47	174	4.4	3.4	3.7	8.3	.34	.40
12	.00	423	217	2.2	36	761	4.2	3.7	3.2	190	.21	1.2
13	.00	79	86	2.8	36	1230	4.1	32	2.1	120	.13	.80
14	.03	43	55	2.5	35	175	3.7	90	2.1	295	.11	.50
15	.05	36	32	2.0	34	97	4.8	37	1.8	345	.11	.45
16	.02	563	28	1.8	55	66	5.7	17	1.5	47	.11	.37
17	.02	153	24	2.4	595	51	5.6	9.0	1.3	18	.11	.30
18	.02	67	17	6.8	186	45	5.1	8.3	1.0	7.8	.10	.45
19	.03	45	13	221	101	111	4.5	13	.90	4.0	.09	.90
20	5.0	36	12	134	67	57	7.0	7.6	.94	2.5	.07	1.6
21	53	27	11	84	52	42	21	4.8	.88	1.5	.07	1.1
22	7.7	21	17	95	42	39	25	3.8	.83	1.2	.07	.90
23	2.7	16	19	52	36	36	9.6	3.0	.77	.91	.08	.75
24	17	12	16	40	38	31	6.4	2.5	.66	.74	.09	.60
25	14	9.9	7.8	37	35	28	5.8	2.2	.52	.65	.07	.50
26	4.6	38	4.0	31	34	26	5.2	71	.47	.55	.07	.45
27	2.4	469	6.0	20	34	28	4.5	154	.43	.47	.21	.35
28	1.4	345	7.9	12	25	23	3.7	41	.41	.42	.24	.30
29	.81	130	6.9	12	---	20	3.2	23	.35	.35	.11	.25
30	37	72	4.9	11	---	17	2.8	12	.31	.24	.06	.25
31	38	---	5.3	11	---	15	---	7.4	---	.27	.04	---
TOTAL	183.79	2768.4	1169.8	822.4	4761	3464	232.4	609.3	125.17	1128.43	4.10	12.75
MEAN	5.93	92.3	37.7	26.5	170	112	7.75	19.7	4.17	36.4	.13	.42
MAX	53	563	217	221	816	1230	25	154	35	345	.34	1.6
MIN	.00	3.4	4.0	1.4	15	11	2.8	1.6	.31	.24	.04	.00
CFSM	.13	1.98	.81	.57	3.64	2.40	.17	.42	.09	.78	.00	.01
IN	.15	2.21	.93	.66	3.79	2.76	.19	.49	.10	.90	.00	.01

CAL YR 1985 TOTAL 14755.05 MEAN 40.4 MAX 1190 MIN .00 CFSM .87 IN 11.75
WTR YR 1986 TOTAL 15281.54 MEAN 41.9 MAX 1230 MIN .00 CFSM .90 IN 12.17

03298000 FLOYDS FORK AT FISHERVILLE, KY

LOCATION.--Lat 38°11'18", long 85°27'37", Jefferson County, Hydrologic Unit 05140102, on left bank on downstream side of bridge on former State Highway 155, at Fisherville, 0.2 mi downstream from Brush Run, 1.4 mi upstream from Pope Lick, and at mile 32.7.

DRAINAGE AREA.--138 mi^2.

PERIOD OF RECORD.--August 1944 to current year. Monthly discharge only for August 1944, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1946. WSP 1909: 1945(P), 1948(P), 1960(M).

GAGE.--Water-stage recorder. Datum of gage is 542.[illegible]0 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 15-19, 28, 30, Jan. 7 to Feb. 5. Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--42 years, 175 ft^3/s, 17.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,500 ft^3/s, Apr. 2, 1970, gage height, 15.63 ft, in gage well, 16.15 ft, from floodmark; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of 16.8 ft, from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jul. 15	0200	*6,770	*10.60	No other peak greater than base discharge.			

No flow part of day Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	74	181	21	60	67	52	15	23	.25	.64	1.1
2	5.0	48	256	20	100	62	49	15	16	53	1.1	21
3	3.0	49	147	19	220	63	45	13	12	46	1.5	8.6
4	2.4	167	115	19	450	62	43	11	8.7	16	2.4	1.9
5	4.9	105	95	20	1280	61	40	9.2	7.4	8.4	2.3	1.1
6	4.8	62	89	18	1540	63	38	23	9.4	5.6	1.8	2.2
7	4.2	44	75	15	2550	59	35	45	78	3.5	1.9	1.1
8	4.1	34	61	13	658	47	33	76	192	1.7	1.7	1.5
9	3.9	27	55	11	431	42	28	66	88	8.0	1.8	1.0
10	3.8	22	49	10	321	73	25	34	45	40	10	.67
11	3.8	20	120	12	268	531	22	23	27	62	18	1.3
12	3.2	687	523	13	218	1350	18	22	22	323	7.9	28
13	2.7	285	244	14	212	3250	17	38	17	254	3.8	7.2
14	9.1	155	175	13	[illegible]	553	16	104	13	311	1.3	5.8
15	25	145	115	12	154	315	19	130	9.7	2150	.59	3.7
16	16	1080	100	30	187	222	21	56	7.8	245	.39	3.5
17	15	548	84	80	1160	172	20	35	5.7	123	.34	5.0
18	8.7	200	64	200	527	147	19	27	4.7	69	.24	6.5
19	15	127	56	510	301	279	18	25	2.8	42	.21	24
20	53	91	58	350	217	204	23	28	1.4	27	.22	40
21	197	72	48	230	170	148	96	22	.89	18	.30	24
22	64	56	52	249	134	126	145	16	.89	13	.30	12
23	33	45	46	180	113	113	71	13	.90	9.3	.39	7.4
24	47	36	45	100	110	95	44	12	.75	5.7	.44	5.8
25	62	31	32	80	109	81	34	9.6	.63	3.9	.35	5.1
26	40	61	24	60	96	73	29	102	.52	2.6	.28	3.9
27	24	716	22	48	100	83	24	392	.56	2.1	.33	3.3
28	16	860	25	35	82	78	21	147	.43	1.7	1.6	3.0
29	11	379	23	42	---	70	19	76	.32	1.1	3.0	3.0
30	59	213	22	35	---	62	16	48	.20	.91	1.9	2.5
31	155	---	20	30	---	57	---	33	---	.74	1.0	---
TOTAL	896.48	6439	3021	2489	11937	8608	1080	1665.8	596.69	3847.50	68.02	235.17
MEAN	28.9	215	97.5	80.3	426	278	36.0	53.7	19.9	124	2.19	7.84
MAX	197	1080	523	510	2550	3250	145	392	192	2150	18	40
MIN	.88	20	20	10	60	42	16	9.2	.20	.25	.21	.67
CFSM	.21	1.56	.71	.58	3.09	2.01	.26	.39	.14	.90	.02	.06
IN	.24	1.74	.81	.67	3.22	2.32	.29	.45	.16	1.04	.02	.06

CAL YR 1985	TOTAL	40535.87	MEAN	111	MAX	2660	MIN	.00	CFSM .80	IN	10.93
WTR YR 1986	TOTAL	40883.66	MEAN	112	MAX	3250	MIN	.20	CFSM .81	IN	11.02

03298500 SALT RIVER AT SHEPHERDSVILLE, KY

LOCATION.--Lat 37°59'06", long 85°43'03", Bullitt County, Hydrologic Unit 05140102, on downstream side of bridge on State Highway 61 at Shepherdsville, 500 ft downstream from Louisville and Nashville Railroad bridge, 2.6 mi downstream from Floyds Fork, and at mile 22.9.

DRAINAGE AREA.--1,197 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WSP 893: 1937(M). WSP 1435: 1955: WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 406.58 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 16, 1939, nonrecording gage at same site and datum. Jan. 16, 1939, to May 21, 1962, water-stage recorder at same site and datum. May 22, 1962, to Nov. 26, 1963, nonrecording gage at same site and datum. Since Oct. 16, 1969, auxiliary water-stage recorder on Floyds Fork 2.8 mi upstream. Prior to Oct. 1, 1946, auxiliary nonrecording gages at various sites downstream from base gage. Oct. 1, 1946, to Oct. 16, 1969, auxiliary nonrecording gage 2.8 mi upstream.

REMARKS.--Estimated daily discharges: Dec. 18-31, Jan. 5-8, 29-31, July 15 and Aug. 1-11. Records good. Flow regulated since January 1983 by Taylorsville Lake (station 03295597).

AVERAGE DISCHARGE.--48 years, 1,551 ft³/s, 17.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 78,200 ft³/s, Mar. 10, 1964; maximum gage height, 41.50 ft, Mar. 11, 1964; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 26, 1937, reached a stage of 47.3 ft, from floodmark (backwater from Ohio River).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,600 ft³/s, Mar. 13; maximum gage height, 19.17 ft; minimum daily discharge 19 ft³/s, Oct. 12, 13 and Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	448	1080	276	381	634	450	400	186	49	57	47
2	29	412	1120	253	1190	857	393	390	150	263	54	32
3	39	429	1610	266	2490	949	358	304	110	180	52	55
4	36	827	2760	273	4980	911	339	259	99	134	51	69
5	28	1390	3230	230	10600	887	324	218	92	122	50	47
6	26	1230	2890	200	7770	743	313	190	1130	83	49	38
7	54	1060	1940	175	12800	683	313	238	1840	63	48	41
8	38	958	1750	150	8350	495	290	360	1740	52	47	37
9	28	880	1690	135	3840	386	238	272	749	44	46	33
10	22	608	1650	141	2820	370	226	182	526	115	45	29
11	20	333	1690	142	3470	589	218	131	400	442	44	30
12	19	2070	2880	146	4120	2360	210	116	929	333	74	59
13	19	3130	2970	154	3300	14300	214	110	1160	625	90	89
14	86	2260	2670	143	2590	12700	234	113	746	582	93	68
15	526	2060	2190	131	2610	5060	263	167	625	350	65	47
16	247	5460	2020	129	2600	3010	290	254	304	2230	42	38
17	127	7360	1450	134	4630	3420	286	254	113	1730	30	40
18	82	2890	1200	160	5180	3250	286	198	95	1360	24	46
19	63	2900	1000	433	2900	4150	290	157	70	1230	22	50
20	136	2690	900	1150	2870	4290	322	131	54	1170	19	79
21	476	1650	800	972	3410	3970	431	107	48	1110	38	154
22	379	1160	700	808	3280	3370	577	99	43	354	61	100
23	414	785	610	751	3270	2990	638	87	40	132	65	82
24	729	630	540	648	2950	2760	595	78	36	100	67	117
25	902	559	500	581	2740	1650	534	75	33	81	66	96
26	501	699	440	489	2320	1370	517	340	31	75	74	81
27	627	5090	400	369	1150	1060	542	1470	28	83	84	67
28	759	5650	370	275	713	966	564	941	27	70	77	62
29	485	4750	340	250	---	719	557	557	27	64	76	52
30	555	2640	320	220	---	517	486	360	27	61	70	44
31	460	---	300	190	---	476	---	238	---	60	65	---
TOTAL	7936	63008	44010	10374	109324	79892	11298	8796	11458	13347	1745	1829
MEAN	256	2100	1420	335	3904	2577	377	284	382	431	56.3	61.0
MAX	902	7360	3230	1150	12800	14300	638	1470	1840	2230	93	154
MIN	19	333	300	129	381	370	210	75	27	44	19	29

CAL YR 1985 TOTAL 400421 MEAN 1097 MAX 12700 MIN 15
WTR YR 1986 TOTAL 363017 MEAN 995 MAX 14300 MIN 19

03298500 SALT RIVER AT SHEPHERDSVILLE, KY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-75, 1979 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1980 to September 1984.
WATER TEMPERATURES: 1949 to 1975, January 1980 to September 1984.
SUSPENDED-SEDIMENT DISCHARGE: 1952 to 1961.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	BAROMETRIC PRESSURE (MM OF HG)	TURBIDITY (NTU)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 1985											
01...	0930	24	15.5	455	8.00	7.7	78	752	--	K400	170
DEC											
16...	1200	2540	6.0	440	8.10	10.8	88	752	8.1	360	110
FEB 1986											
24...	1000	3050	6.0	300	7.90	10.8	89	746	23	1600	320
APR											
07...	1030	314	19.0	430	8.70	7.9	87	747	17	K140	K6
JUN											
03...	1115	120	24.0	430	7.80	--	--	749	9.0	--	56
AUG											
11...	1045	46	25.0	425	8.10	6.8	84	748	27	230	130

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICARBONATE IT-FLD (MG/L AS HCO3)	ALKALINITY, CARBONATE IT-FLD (MG/L - CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 1985											
01...	230	47	53	23	18	4.7	180	--	--	52	24
DEC											
16...	210	40	64	11	5.8	3.2	165	--	--	31	11
FEB 1986											
24...	190	31	60	9.0	5.2	2.9	152	190	156	22	8.3
APR											
07...	220	46	64	14	7.0	2.7	172	--	--	37	12
JUN											
03...	200	33	57	13	9.4	4.4	159	199	163	36	12
AUG											
11...	180	23	53	12	12	4.4	158	194	159	45	18

03298500 SALT RIVER AT SHEPHERDSVILLE, KY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)
OCT 1985											
01...	0.2	2.5	265	0.50	0.04	0.6	0.18	0.15	30	2	48
DEC											
16...	<1.0	5.1	241	1.90	0.09	0.6	0.17	0.13	20	<1	21
FEB 1986											
24...	0.2	5.0	220	2.00	0.04	0.8	0.24	0.14	--	--	--
APR											
07...	0.2	0.4	249	0.36	0.04	1.2	0.23	0.07	40	1	29
JUN											
03...	0.3	4.5	251	1.70	0.10	0.9	0.34	0.19	--	--	--
AUG											
11...	0.2	3.9	257	0.42	0.11	1.0	0.21	0.12	--	--	--

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
OCT 1985										
01...	0.5	<1	<1	<3	4	20	3	8	23	<0.1
DEC										
16...	<0.5	<1	<1	<3	2	25	<1	7	40	<0.1
FEB 1986										
24...	--	--	--	--	--	--	--	--	--	--
APR										
07...	<0.5	<1	<1	<3	3	9	3	5	5	<0.1
JUN										
03...	--	--	--	--	--	--	--	--	--	--
AUG										
11...	--	--	--	--	--	--	--	--	--	--

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1985										
01...	<10	1	<1	<1	160	<6	12	12	0.78	100
DEC										
16...	<10	<1	--	<1	150	<6	11	14	96	100
FEB 1986										
24...	--	--	--	--	--	--	--	32	264	100
APR										
07...	<10	1	<1	<1	140	<6	11	23	19	100
JUN										
03...	--	--	--	--	--	--	--	33	11	100
AUG										
11...	-	--	--	--	--	--	--	25	3.1	100

BEST COPY AVAILABLE

03299000 ROLLING FORK NEAR LEBANON, KY

LOCATION.--Lat 37°29'50", long 85°19'26", Marion County, Hydrologic Unit 05140103, on left bank at downstream side of bridge on State Highway 289, 2.2 mi downstream from Buckhorn Creek, 5.4 mi southwest of city limits of Lebanon, 14.0 mi downstream from confluence of North and Big South Forks, and at mile 94.0.

DRAINAGE AREA.--239 mi².

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 580.71 ft above National Geodetic Vertical Datum of 1929. Prior to May 28, 1953, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 13, Jan. 20-21, Jan. 27 to Feb. 27 and June 12-13. Records fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--48 years, 339 ft³/s, 19.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,800 ft³/s, Apr. 28, 1970, gage height, 24.51 ft, from rating curve extended above 14,000 ft³/s, on basis of contracted-opening and flow-over-road measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 24.7 ft occurred in 1913, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 13	1100	*9,520	*14.34	No other peak greater than base discharge.			

Minimum daily discharge, 0.25 ft³/s, Aug. 8, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	64	356	52	60	167	96	35	103	11	3.5	.46
2	132	48	332	48	100	157	90	31	74	22	2.7	.50
3	72	75	253	44	230	154	84	28	62	26	1.7	.50
4	39	291	194	41	600	142	79	24	54	23	.94	.50
5	25	265	159	39	500	133	72	21	49	18	.60	.44
6	19	166	131	35	400	129	79	19	79	15	.51	1.0
7	14	105	108	33	1300	118	96	17	476	12	.38	2.8
8	12	78	97	27	900	104	83	16	2020	10	.25	2.8
9	11	61	84	23	600	101	66	16	593	10	.31	1.9
10	8.7	48	74	25	400	97	62	16	855	12	.38	1.2
11	9.0	39	306	29	250	119	58	13	334	29	.38	10
12	6.7	33	583	25	190	284	50	12	450	28	.27	420
13	6.1	58	634	25	170	6090	47	12	1100	20	.25	97
14	6.7	88	698	27	180	1500	44	25	319	16	1.0	33
15	9.3	77	393	24	190	681	45	456	210	683	1.3	20
16	7.4	403	296	20	350	435	44	209	136	243	3.1	14
17	7.1	551	231	22	1000	332	42	86	94	42	2.8	11
18	5.9	259	186	26	4500	286	41	50	68	25	4.1	9.5
19	5.3	176	122	62	2800	2500	37	41	51	17	5.8	12
20	5.8	127	142	140	1500	852	60	43	42	13	4.4	18
21	7.1	97	121	115	900	475	204	32	35	9.6	2.0	140
22	8.2	86	107	81	600	358	194	23	27	7.3	.95	75
23	38	79	116	60	420	294	133	19	25	6.0	.74	145
24	303	70	99	53	350	244	100	16	23	4.2	.71	563
25	131	59	74	55	280	207	84	14	20	2.7	.71	167
26	73	81	49	53	240	179	73	48	16	2.1	.68	72
27	48	1450	56	52	210	166	61	102	13	2.2	.53	41
28	33	1750	62	50	194	145	53	113	13	7.4	.38	31
29	27	1220	62	50	---	130	48	71	12	9.1	.38	24
30	41	507	55	50	---	117	41	371	12	5.8	.38	18
31	74	---	59	49	---	106	---	180	---	3.8	.38	---
TOTAL	1224.3	8411	6239	1435	19414	16802	2266	2159	7365	1335.2	42.51	1932.60
MEAN	39.5	280	201	46.3	693	542	75.5	69.6	246	43.1	1.37	64.4
MAX	303	1750	698	140	4500	6090	204	456	2020	683	5.8	563
MIN	5.3	33	49	20	60	97	37	12	12	2.1	.25	.44
CFSM	.17	1.17	.84	.19	2.90	2.27	.32	.29	1.03	.18	.01	.27
IN	.19	1.31	.97	.22	3.02	2.62	.35	.34	1.15	.21	.01	.30

CAL YR 1985 TOTAL 76177.7 MEAN 209 MAX 4230 MIN 2.6 CFSM .87 IN 11.86
WTR YR 1986 TOTAL 68625.61 MEAN 188 MAX 6090 MIN .25 CFSM .79 IN 10.68

SALT RIVER BASIN

03300400 BEECH FORK AT MAUD, KY

LOCATION.--Lat 37°49'58", long 85°17'46", Nelson County, Hydrologic Unit 05140103, on right bank on downstream side of bridge on State Highway 55, 100 ft upstream from Nealy Run, 0.8 mi north of Maud, 1.7 mi downstream from Chaplin River, and at mile 48.1.

DRAINAGE AREA.--436 mi^2.

PERIOD OF RECORD.--August 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 530.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 21, 26-30, Jan. 8-9, Jan. 28-Feb. 1 and Feb. 14-16. Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--14 years, 619 ft^3/s, 19.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,300 ft^3/s, Dec. 9, 1978, gage height, 26.16 ft; no flow Oct. 8, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 4-6, 1964, reached a stage of 25.64 ft, discharge, 28,300 ft^3/s, from information by the U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 4	0700	8,210	16.52	Mar. 13	0700	*14,000	*19.37

Minimum discharge, 0.17 ft^3/s, Sept. 8, 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	232	648	77	50	244	165	45	50	2.8	2.5	.29
2	11	151	491	72	1180	221	153	41	39	4.3	2.0	.26
3	13	229	418	71	4970	213	142	37	34	6.3	1.6	.26
4	16	1240	324	68	6640	212	132	33	28	6.9	1.5	.26
5	30	890	276	64	2740	201	123	30	27	5.9	1.1	.25
6	20	438	246	51	2630	191	117	27	72	4.9	.98	.22
7	15	269	213	49	5580	180	116	25	240	4.4	.77	.20
8	12	189	181	45	1800	164	112	27	450	4.0	.84	.20
9	8.1	140	159	42	958	148	102	27	205	3.7	.86	.17
10	7.1	109	142	40	689	186	90	24	991	4.1	.81	.18
11	6.7	88	544	35	572	404	81	28	434	4.7	.96	.28
12	6.5	163	2980	34	488	1790	76	28	190	352	.85	1.7
13	8.6	346	1360	34	423	11400	74	26	273	1160	.66	2.6
14	12	190	1710	33	350	5180	70	23	232	267	.71	38
15	82	153	882	34	300	1250	68	24	162	272	.67	33
16	137	605	514	32	400	724	66	25	101	611	.70	18
17	124	2380	386	35	4130	523	69	60	69	141	.74	9.5
18	50	848	307	36	3700	424	70	46	47	62	.62	8.0
19	26	396	245	54	1950	3200	68	37	35	36	.65	7.3
20	19	273	212	161	902	2820	70	31	27	20	.75	161
21	567	204	180	268	616	831	191	46	21	11	.67	190
22	378	161	154	200	473	544	214	47	17	121	.61	30
23	141	135	131	147	389	441	167	37	13	52	.61	33
24	779	118	146	115	346	378	135	30	9.5	27	.85	794
25	709	106	130	95	322	324	106	25	7.1	18	.69	383
26	242	475	125	84	298	284	86	26	5.8	12	.53	237
27	135	5820	110	76	286	257	72	144	4.8	8.2	.66	112
28	86	3710	100	70	275	233	63	141	4.2	5.6	.56	61
29	58	3000	95	65	---	214	55	124	3.8	3.9	.42	39
30	504	1160	90	60	---	195	48	87	3.2	2.8	.50	26
31	565	---	86	56	---	180	---	67	---	2.3	.48	---
TOTAL	4775.4	24218	13585	2303	43457	33556	3101	1418	3795.4	3236.8	26.85	2186.67
MEAN	154	307	438	74.3	1552	1082	103	45.7	127	104	.87	72.9
MAX	779	5820	2980	268	6640	11400	214	144	991	1160	2.5	794
MIN	6.5	88	86	32	50	148	48	23	3.2	2.3	.42	.17
CFSM	.35	1.85	1.00	.17	3.56	2.48	.24	.10	.29	.24	.00	.17
IN	.41	2.07	1.16	.20	3.71	2.86	.26	.12	.32	.28	.00	.19

CAL YR 1985 TOTAL 139023.7 MEAN 381 MAX 5820 MIN 2.8 CFSM .87 IN 11.86
WTR YR 1986 TOTAL 135659.12 MEAN 372 MAX 11400 MIN .17 CFSM .85 IN 11.57

03301500 ROLLING FORK NEAR BOSTON, KY

LOCATION.--Lat 37°46'02", long 85°42'14", Nelson County, Hydrologic Unit 05140103, on downstream side near center of span of bridge on U.S. Highway 62 and State Highway 61, 0.4 mi downstream from Beech Fork, 2.3 mi southwest of Boston, and at mile 19.8.

DRAINAGE AREA.--1,299 mi².

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 400.42 ft above National Geodetic Vertical Datum of 1929. Apr. 22, 1941, to Sept. 30, 1971, nonrecording gage at same site and datum. Prior to Apr. 22, 1941, nonrecording gage at bridge 1,400 ft upstream at same datum. Since Oct. 1, 1957, auxiliary nonrecording gage at State Highway 434 bridge 7.6 mi downstream. Feb. 4, 1942, to Sept. 30, 1957, auxiliary nonrecording gage 3.5 mi downstream. Prior to Feb. 4, 1942, auxiliary water-stage recorder or nonrecording gage at mouth of Rolling Fork 20 mi downstream.

REMARKS.--Estimated daily discharges: Oct. 27 to Nov. 9, Dec. 20-25, Dec. 31 to Jan. 3, 9-14, 24-30, May 18 to Jun. 5, Aug. 15-18, and Aug. 28 to Sept. 4. Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--48 years, 1,783 ft³/s, 18.64 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 65,000 ft³/s, Dec. 10, 1978, maximum gage height, 51.73 ft, Dec. 11, 1978; minimum discharge observed, 0.4 ft³/s, Oct. 20, 1939, and for many days in September and October 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of 55.2 ft, former site, from floodmarks (backwater from Ohio River).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 14	2400	*18,600	*38.12	No other peak greater than base discharge			

Minimum daily discharge, 6.7 ft³/s, Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	520	4120	230	214	886	599	186	576	49	32	15
2	65	480	3930	215	2100	802	548	173	372	129	30	14
3	66	450	4030	200	5830	747	501	159	286	102	27	13
4	75	700	3680	185	10000	702	460	145	211	78	23	15
5	122	1280	2810	178	12200	673	425	135	232	66	25	15
6	101	1100	1720	168	9300	646	400	128	322	58	25	13
7	82	970	962	152	10400	612	395	120	575	56	22	11
8	70	900	736	148	11700	556	405	125	831	52	23	9.7
9	63	740	648	140	7080	511	391	128	1770	53	23	7.9
10	58	630	576	135	3190	481	347	116	1650	319	32	6.9
11	52	420	605	130	2250	642	308	108	1990	1410	32	6.7
12	45	348	3340	128	2030	2210	281	107	1270	364	27	96
13	38	507	4190	122	1780	9560	266	141	1900	942	24	88
14	37	1160	3230	120	1500	16900	250	133	1520	1050	22	234
15	467	825	3070	206	1470	15700	233	337	821	446	20	169
16	394	1170	2090	428	8440	7840	222	672	582	452	19	99
17	235	3030	1600	527	4450	2860	219	707	396	782	18	68
18	222	3430	1260	655	8440	1880	217	363	285	423	17	65
19	152	1850	831	564	9790	4960	211	265	217	231	27	61
20	116	1240	720	463	8210	7970	211	243	169	158	64	61
21	271	973	550	399	3640	6120	259	229	141	119	58	689
22	829	681	500	360	2180	2590	466	192	121	92	38	475
23	629	538	450	238	1790	1800	652	169	105	83	31	297
24	698	454	400	210	1570	1490	539	162	91	114	26	1940
25	1160	395	370	185	1440	1280	426	146	79	84	21	1440
26	1100	582	335	168	1210	1100	351	177	70	66	22	880
27	655	5370	305	155	1090	981	297	1130	64	54	23	548
28	800	8370	296	148	986	881	259	1190	58	47	22	310
29	520	8600	273	142	---	800	231	744	53	41	20	206
30	590	6730	256	244	---	725	207	574	49	36	18	148
31	640	---	240	212	---	659	---	610	---	33	17	---
TOTAL	10406	54443	48123	7555	134280	95564	10576	9814	16808	7989	828	8001.2
MEAN	336	1815	1552	244	4796	3083	353	317	560	258	26.7	267
MAX	1160	8600	4190	655	12200	16900	652	1190	1990	1410	64	1940
MIN	37	348	240	120	214	481	207	107	49	33	17	6.7
CFSM	.26	1.40	1.19	.19	3.69	2.37	.27	.24	.43	.20	.02	.21
IN	.30	1.56	1.38	.22	3.85	2.74	.30	.28	.48	.23	.02	.23

CAL YR 1985 TOTAL 442098 MEAN 1211 MAX 12000 MIN 37 CFSM .93 IN 12.66
WTR YR 1986 TOTAL 404387.2 MEAN 1108 MAX 16900 MIN 6.7 CFSM .85 IN 11.58

03301630 ROLLING FORK NEAR LEBANON JUNCTION, KY
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°49'22", long 85°44'52", Hardin County, Hydrologic Unit 05140103, at bridge on State Highway 434, 1.1 mi downstream from Wilson Creek, 1.2 mi southwest of Lebanon Junction, and at mile 12.3.
DRAINAGE AREA.--1,375 mi².
PERIOD OF RECORD.--Water years 1975 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1975 to September 1980.
WATER TEMPERATURES: June 1975 to September 1980.
REMARKS.--Records of daily discharge are published for gaging station near Boston (see station 03301500) 7.5 mi upstream.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	BAROMETRIC PRESSURE (MM OF HG)	TURBIDITY (NTU)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 1985											
19...	1030	2090	16.5	320	8.10	5.7	59	751	40	2600	3800
FEB 1986											
25...	1100	1470	7.0	410	8.00	9.4	79	751	20	350	350
MAY											
15...	1230	438	21.0	400	7.60	5.2	60	746	150	K7300	>10000
AUG											
12...	1015	27	24.0	410	7.80	6.4	77	750	54	57	88

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICARBONATE IT-FLD (MG/L AS HCO3)	ALKALINITY, CARBONATE IT-FLD (MG/L - CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
NOV 1985											
19...	180	30	54	11	4.0	4.3	190	183	150	38	6.8
FEB 1986											
25...	200	41	58	14	4.9	1.8	198	198	162	6.2	33
MAY											
15...	200	70	53	16	7.6	3.2	122	156	128	53	8.8
AUG											
12...	190	20	54	14	9.1	3.9	171	211	173	30	13

03301630 ROLLING FORK NEAR LEBANON JUNCTION, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)
NOV 1985 19...	0.1	6.9	217	1.00	0.17	0.9	0.36	0.10	30	<1	32
FEB 1986 25...	0.1	6.9	234	2.00	0.04	0.5	0.13	0.05	10	<1	26
MAY 15...	0.1	4.2	239	0.78	0.15	1.5	0.21	0.07	20	1	34
AUG 12...	0.2	5.1	240	0.20	0.03	0.7	0.18	0.04	--	--	--

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
NOV 1985 19...	0.5	8	<1	<3	8	61	3	<4	9	<0.1
FEB 1986 25...	<0.5	6	<1	<3	2	10	<1	6	34	<0.1
MAY 15...	<0.5	<1	<1	<3	2	9	1	7	110	<0.1
AUG 12...	--	--	--	--	--	--	--	--	--	--

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1985 19...	<10	5	<1	<1	130	<6	25	134	756	100
FEB 1986 25...	<10	2	<1	<1	130	<6	3	31	123	100
MAY 15...	<10	1	<1	<1	140	<6	9	366	433	100
AUG 12...	--	--	--	--	--	--	--	61	4.4	100

03302000 POND CREEK NEAR LOUISVILLE, KY

LOCATION.--Lat 38°07'11", long 85°47'45", Jefferson County, Hydrologic Unit 05140102, on downstream side of bridge on Manslick Road, near center of span, 0.4 mi south of Third Street Road, 0.6 mi downstream from Bee Lick Creek, 1.5 mi downstream from confluence of Northern and Southern Ditches, 2.4 mi south of Louisville city limits, and at mile 15.4.

DRAINAGE AREA.--64.0 mi².

PERIOD OF RECORD.--August 1944 to current year.

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 430.38 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1961, water-stage recorder at site 300 ft downstream at datum 4.00 ft higher. Oct. 1, 1961 to Nov. 16, 1962, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Dec. 26-30, Jan. 8, 28 to Feb. 1, Apr. 25 to May 1, and May 17-24. Records fair. Records include small amount of inflow diverted by manufacturing plants from Louisville water supply, which is pumped from Ohio River. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality dat section.

AVERAGE DISCHARGE.--42 years, 89.4 ft³/s, 18.97 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,020 ft³/s, Mar. 9, 1964, gage height, 22.69 ft; no flow Sept. 19, 20, Oct. 29, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of about 23 ft present datum, backwater from Ohio River, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 6	2230	*1,660	*14.14	Jul. 15	0500	1,610	13.85

Minimum daily discharge, 8.3 ft³/s, June 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	44	129	22	19	37	22	18	19	64	25	10
2	18	39	107	20	401	35	21	23	19	232	15	118
3	13	153	62	19	340	35	21	21	16	32	11	41
4	11	94	48	17	507	32	21	20	15	18	14	24
5	11	46	46	17	751	31	20	20	28	13	15	20
6	11	35	44	17	610	37	20	155	155	11	15	16
7	17	29	36	20	679	32	20	34	90	10	18	14
8	12	25	33	20	212	27	20	111	60	12	19	14
9	11	21	31	20	136	27	19	29	26	11	42	13
10	11	19	30	18	100	38	18	24	21	109	92	13
11	12	62	121	18	96	35	18	23	18	150	56	17
12	11	524	139	19	90	309	17	29	27	238	21	153
13	10	137	95	19	80	692	17	41	17	69	17	31
14	98	88	94	16	70	183	16	25	14	29	17	21
15	36	104	79	15	60	101	25	39	11	713	16	17
16	17	678	48	14	161	68	21	24	11	68	14	17
17	13	182	52	15	330	51	21	26	26	39	12	16
18	12	82	48	21	182	52	20	28	13	27	11	43
19	21	61	47	176	127	190	20	24	10	24	11	43
20	354	63	47	119	98	74	48	21	9.9	20	10	164
21	97	48	47	58	82	48	82	19	9.6	18	9.8	36
22	29	39	47	42	70	40	55	16	9.1	17	14	191
23	83	35	46	32	61	36	26	13	9.1	18	25	35
24	82	31	33	28	79	33	22	11	9.3	16	26	30
25	30	29	30	26	57	29	20	12	9.8	14	13	22
26	23	109	29	24	47	26	18	373	10	13	11	19
27	19	341	28	23	59	48	16	294	8.5	13	12	29
28	17	329	33	22	45	30	15	68	8.4	14	14	25
29	36	133	31	21	---	24	13	40	8.3	17	13	18
30	309	81	28	20	---	23	15	28	8.6	12	10	17
31	61	---	24	19	---	23	---	22	---	43	9.1	---
TOTAL	1534	3661	1712	937	5549	2446	707	1631	696.6	2084	607.9	1227
MEAN	49.5	122	55.2	30.2	198	78.9	23.6	52.6	23.2	67.2	19.6	40.9
MAX	354	678	139	176	751	692	82	373	155	713	92	191
MIN	10	19	24	14	19	23	13	11	8.3	10	9.1	10
CFSM	.77	1.91	.86	.47	3.09	1.23	.37	.82	.36	1.05	.31	.64
IN	.89	2.13	.00	.54	3.23	1.42	.41	.95	.40	1.21	.35	.71

CAL YR 1985 TOTAL 26568.3 MEAN 72.8 MAX 1060 MIN 8.3 CFSM 1.14 IN 15.44
WTR YR 1986 TOTAL 22792.5 MEAN 62.4 MAX 751 MIN 8.3 CFSM .97 IN 13.25

03303280 OHIO RIVER AT CANNELTON DAM, KY

LOCATION.--Lat 37°53'58", long 86°42'20", Hancock County, Hydrologic Unit 05140201, at Cannelton Dam, 0.7 mi upstream from Indian Creek, 3.3 mi upstream from Lead Creek, and at mile 720.8.

DRAINAGE AREA.--97,000 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Gate opening and water-stage recorders. Datum of headwater gage 0.4 mi upstream is 374.0 ft Ohio River datum. Datum of tailwater gage 0.4 mi downstream is 26.0 ft lower.

REMARKS.--No estimated daily discharge. Records good except those below 20,000 ft³/s, which are fair. Daily discharge computed from head, gate openings, and lockages. Flow regulated by Ohio River system of locks, dams, and reservoirs upstream from station.

AVERAGE DISCHARGE.--11 years, 128,492 ft³/s, 17.99 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 617,000 ft³/s, Dec. 15, 1978, maximum headwater gage height, 23.84 ft, Dec. 15, 1978; maximum tailwater gage height, 49.08 ft, Dec. 15, 1978; minimum daily discharge, 3,540 ft³/s, Sept. 16, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 483,000 ft³/s, Dec. 4, maximum headwater gage height, 17.00 ft, Dec. 4, maximum tailwater gage height, 42.51 ft, Dec. 4; minimum daily discharge, 5,110 ft³/s, Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17900	14300	424000	56100	111000	226000	70800	64900	62200	54800	16300	20100
2	19100	14000	458000	56300	124000	204000	62100	69100	56200	95300	18500	11900
3	15000	33100	478000	56600	119000	186000	65100	60500	26100	139000	25500	14200
4	15100	49500	483000	58400	149000	163000	64000	54700	25900	159000	20500	31800
5	16100	86900	465000	61700	232000	141000	45800	49300	29700	163000	18200	24200
6	15800	141000	428000	55700	294000	122000	49100	31800	40300	154000	24200	40600
7	14400	210000	369000	56800	341000	120000	52100	39100	64300	131000	13100	25000
8	34200	229000	292000	56900	397000	121000	53200	56700	93800	80400	21800	19300
9	17500	272000	240000	47900	429000	120000	60700	67100	104000	39000	24700	20800
10	19400	305000	222000	43900	443000	114000	63900	60500	96800	49700	19100	5110
11	8690	304000	197000	44100	446000	110000	62800	50500	90400	77800	26200	19300
12	18000	267000	201000	43300	431000	125000	61800	47500	89300	83300	37800	38900
13	14600	240000	221000	39800	389000	216000	64300	44100	102000	107000	27700	24600
14	14600	237000	214000	41900	314000	294000	58800	55400	106000	127000	21800	13100
15	11400	232000	236000	48100	241000	319000	54100	96100	120000	124000	21800	13800
16	16900	240000	269000	42800	206000	328000	57700	99000	121000	120000	22600	24200
17	23100	284000	298000	41200	190000	316000	60400	75300	111000	95700	21800	16900
18	16200	311000	299000	38300	210000	316000	61500	67700	83000	71500	23600	15300
19	9350	303000	269000	48800	257000	346000	72600	56500	74400	66800	27400	13100
20	35200	312000	221000	74600	295000	367000	85600	46700	89600	65400	24700	24600
21	102000	318000	194000	103000	326000	360000	96200	56300	79400	50000	13000	16600
22	67400	292000	155000	133000	360000	316000	106000	80000	63000	58800	17100	21600
23	69200	243000	128000	167000	371000	253000	107000	92600	57800	68100	30500	18600
24	57700	214000	108000	207000	363000	219000	105000	97600	49100	79500	17300	20700
25	50300	196000	93800	229000	340000	186000	106000	91800	38100	74000	26200	39500
26	46600	195000	86600	232000	295000	158000	106000	68100	40200	73100	32800	49500
27	29500	214000	86300	222000	270000	131000	105000	56500	27200	49100	16000	35500
28	35000	237000	82800	200000	256000	114000	97000	51800	30400	46500	34900	65500
29	41200	304000	72300	179000	---	103000	74500	55500	43600	33000	27500	52800
30	32800	375000	64000	157000	---	88200	60600	54300	52400	46500	16700	72700
31	37200	---	55400	133000	---	86200	---	54200	---	42800	18600	---
TOTAL	921440	6672800	7410200	2975200	8200000	6268400	2189700	1951200	2067200	2625100	707900	809810
MEAN	29720	222400	239000	95970	292900	202200	72990	62940	68910	84680	22840	26990
MAX	102000	375000	483000	232000	446000	367000	107000	99000	121000	163000	37800	72700
MIN	8690	14000	55400	38300	111000	86200	45800	31800	25900	33000	13000	5110

CAL YR 1985 TOTAL 45526300 MEAN 124700 MAX 483000 MIN 3540
WTR YR 1986 TOTAL 42798950 MEAN 117300 MAX 483000 MIN 5110

03303280 OHIO RIVER AT CANNELTON DAM, KY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Samples are collected 2.0 mi² upstream from discharge station.
PERIOD OF RECORD.--Water years 1975 to 1986 (discontinued).
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1986 (discontinued).
WATER TEMPERATURES: October 1974 to September 1986 (discontinued).
REMARKS.--Flow regulated by Ohio River system of locks, dams, and reservoirs.
COOPERATION.--Records of conductance and temperature collected on right bank at Cannelton Dam and furnished by U.S. Army Corps of Engineers.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 691 microsiemens, Nov. 14, 1978; minimum daily, 176 microsiemens, Dec. 15, 1978.
WATER TEMPERATURES: Maximum daily, 30.0°C, July 23, 24, 1977, Aug. 5, 1982, several days in July and August, 1983; minimum daily, 0.0°C, on several days during winter periods.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 501 microsiemens, Oct. 31; minimum, 225 microsiemens, Feb. 17.
WATER TEMPERATURES: Maximum daily, 29.5°C, July 30, 31, Aug. 2, 3; minimum daily, 1.5°C, January 30.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (NTU)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 1985											
20...	1100	31200	13.0	305	7.90	5.6	53	758	70	K1700	4000
FEB 1986											
26...	1115	301000	6.0	270	7.60	11.0	92	734	92	730	830
MAY											
20...	1045	39200	22.0	400	7.90	7.7	90	748	5.0	K9	K20
AUG											
13...	1300	81800	29.0	370	7.80	6.0	80	748	7.8	K1	K100

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV 1985											
20...	120	56	35	8.4	11	3.7	69	80	66	54	18
FEB 1986											
26...	100	57	28	8.2	11	2.0	59	57	47	51	14
MAY											
20...	140	62	39	11	18	2.4	76	98	81	74	23
AUG											
13...	140	70	36	11	22	3.0	62	79	65	95	19

03303280 OHIO RIVER AT CANNELTON DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)
NOV 1985											
20...	0.2	6.0	178	1.40	0.03	1.4	0.62	0.04	60	<1	42
FEB 1986											
26...	0.1	6.3	151	1.50	0.07	0.6	0.18	0.02	20	<1	32
MAY											
20...	0.2	1.4	224	1.10	0.07	0.7	0.08	0.04	20	<1	41
AUG											
13...	0.3	0.5	233	1.00	<0.01	0.5	0.07	0.05	--	--	--

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
NOV 1985										
20...	<0.5	6	<1	<3	9	95	5	<4	6	0.1
FEB 1986										
26...	<0.5	<1	<1	<3	2	12	<1	5	4	0.2
MAY										
20...	<0.5	[illegible]	<1	<3	5	12	3	11	3	<0.1
AUG										
13...	--	--	--	--	--	--	--	--	--	--

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1985										
20...	<10	5	<1	<1	180	<6	10	409	34500	100
FEB 1986										
26...	<10	2	<1	<1	170	<6	6	243	197000	100
MAY										
20...	<10	3	<1	<1	240	<6	14	10	1060	100
AUG										
13...	--	--	--	--	--	--	--	12	2650	100

03303280 OHIO RIVER AT CANNELTON DAM, KY--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	403	---	292	302	372	289	332	392	300	---	---	371
2	403	---	292	302	348	338	291	392	290	---	371	373
3	387	---	292	307	348	338	314	409	410	399	371	389
4	414	---	242	312	323	338	314	409	410	430	362	402
5	387	---	242	343	284	328	314	420	312	430	362	398
6	398	---	242	338	270	314	331	420	330	370	371	389
7	398	---	---	348	265	352	325	392	300	350	362	389
8	398	---	253	333	265	---	336	413	330	311	362	405
9	398	---	264	359	284	352	342	424	330	303	362	385
10	414	---	264	354	265	337	353	445	330	295	362	385
11	414	---	264	354	250	337	353	445	312	270	362	385
12	420	---	275	354	245	337	365	445	340	280	362	390
13	403	---	275	374	245	326	353	456	330	280	---	385
14	398	---	280	359	250	352	336	445	340	280	---	385
15	398	---	297	369	235	352	336	456	350	270	373	395
16	387	---	297	369	235	337	342	440	370	280	389	400
17	414	---	297	374	225	337	342	435	370	295	389	400
18	414	---	308	380	245	352	376	424	370	308	373	405
19	414	---	308	395	240	337	376	403	350	---	365	405
20	414	---	308	390	255	337	370	392	390	303	365	375
21	414	---	308	390	265	337	359	376	380	303	365	385
22	414	---	302	390	289	316	359	376	399	299	365	385
23	425	---	302	406	270	337	353	371	410	303	365	385
24	436	---	260	416	270	326	376	366	420	299	371	385
25	441	---	260	406	260	326	370	371	430	308	371	390
26	458	308	260	397	255	326	370	366	430	299	365	375
27	480	308	270	387	255	316	392	344	440	308	365	385
28	496	308	281	431	284	316	381	360	430	308	365	385
29	496	308	281	416	---	316	392	366	---	335	365	375
30	496	308	291	402	---	326	398	360	399	335	373	385
31	501	---	291	382	---	326	---	330	---	371	389	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.5	---	12.0	2.0	3.0	5.0	11.5	17.0	22.0	28.5	---	25.5
2	21.0	---	12.0	2.0	3.0	5.5	12.0	17.0	23.0	---	29.5	25.0
3	21.0	---	12.0	3.0	3.0	5.5	12.0	17.0	23.0	28.0	29.5	25.0
4	21.0	---	10.0	3.0	4.0	5.0	13.0	17.0	23.0	25.5	29.0	25.0
5	21.0	---	10.0	3.0	5.0	5.0	13.5	18.0	23.0	25.5	29.0	26.0
6	20.5	---	9.0	2.0	4.5	5.5	13.5	18.0	23.0	26.0	29.0	26.0
7	20.0	---	---	2.0	5.5	4.5	13.5	18.0	23.0	27.0	29.0	25.5
8	20.0	---	9.0	2.0	5.5	---	14.0	18.0	23.5	27.0	29.0	25.5
9	20.0	---	9.0	2.0	4.5	5.5	14.0	19.5	24.0	27.0	29.0	25.0
10	20.0	---	10.0	2.0	4.5	6.5	14.0	19.5	24.0	27.0	28.5	25.0
11	20.5	---	10.0	2.0	3.5	7.0	15.0	20.0	24.5	27.0	28.5	25.0
12	20.5	---	9.5	3.5	4.0	7.0	15.0	20.5	24.5	27.0	28.0	25.0
13	20.5	---	7.0	3.0	3.5	8.0	15.0	20.5	23.0	27.0	---	25.0
14	20.5	---	7.0	2.0	4.5	8.0	15.0	20.5	23.0	27.0	---	24.5
15	20.5	---	6.5	2.0	5.0	8.0	15.0	20.5	25.5	27.0	27.0	25.5
16	20.0	---	6.5	2.0	4.5	8.0	15.0	21.0	25.5	27.0	27.0	25.0
17	20.0	---	6.5	2.0	5.0	8.0	15.0	21.0	25.5	28.0	27.0	24.5
18	20.0	---	6.5	3.5	5.5	8.5	15.0	21.0	25.5	28.0	28.0	24.5
19	20.5	---	5.5	2.0	6.0	9.0	15.0	21.0	25.5	---	28.0	24.5
20	20.5	---	4.5	2.0	6.0	9.0	15.0	21.0	23.5	28.0	28.0	24.5
21	20.0	---	4.5	3.0	6.5	8.0	15.0	20.5	25.5	23.0	28.0	24.5
22	19.5	---	4.5	3.5	6.5	8.5	15.0	20.5	26.5	28.0	28.0	24.5
23	19.5	---	4.5	3.5	6.5	8.5	15.0	20.5	27.0	28.0	28.0	24.5
24	20.0	---	4.5	2.0	6.0	8.5	14.5	20.5	27.0	28.0	28.0	24.5
25	20.5	---	4.5	2.0	5.0	8.5	14.5	20.5	27.0	28.0	27.0	24.5
26	20.0	12.0	3.5	2.0	4.5	9.5	15.0	21.0	26.5	28.0	27.0	24.5
27	20.0	12.0	3.5	2.0	5.5	10.0	15.5	21.0	27.0	28.5	27.0	25.0
28	20.0	12.0	3.0	2.0	5.0	10.0	15.5	21.5	27.0	29.0	27.0	25.5
29	19.5	11.5	3.0	2.0	---	10.0	15.5	22.0	---	29.0	26.5	26.0
30	19.0	11.0	3.0	2.5	---	10.5	16.5	22.0	29.0	29.5	26.0	26.0
31	18.5	---	3.0	3.0	---	11.0	---	22.0	---	29.5	25.5	---

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GREEN RIVER BASIN

03306000 GREEN RIVER NEAR CAMPBELLSVILLE, KY

LOCATION.--Lat 37°14'25", long 85°20'50", Taylor County, Hydrologic Unit 05110001, on right bank on downstream side of pier of bridge on State Highway 55, 0.6 mi downstream from Green River Dam, 0.8 mi upstream from Pinch Creek, 6.9 mi south of Campbellsville, and at mile 305.1.

DRAINAGE AREA.--682 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to March 1932, October 1963 to current year. Monthly discharge only for October 1930, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Apr. 1, 1932, nonrecording gage at site 1.1 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Green River Lake beginning February 1969 (station 03305990).

AVERAGE DISCHARGE.--24 years (1930-31, 1963-86), 1,103 ft³/s, 21.96 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,200 ft³/s, Jan. 30, 1932, gage height, 21.32 ft, from graph based on gage readings, site and datum then in use, from rating curve extended above 6,200 ft³/s; no flow May 15-17, 1982.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 28, 1962, reached a stage of 122.6 ft, from floodmarks, discharge, 60,700 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,330 ft³/s, Dec. 9, gage height, 101.20 ft; minimum daily, 26 ft³/s, May 30 to June 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	429	1620	1580	212	82	2710	66	60	26	88	85	83
2	425	1610	1290	212	82	2690	66	59	29	89	85	83
3	425	1610	780	212	232	2450	66	56	34	88	85	83
4	425	1750	1420	212	753	1530	66	56	34	88	85	84
5	430	1950	2300	212	1430	1060	66	56	34	88	85	84
6	433	1940	2510	286	1740	869	66	56	40	87	85	84
7	429	1930	2650	380	2250	605	66	55	50	86	85	83
8	301	809	2620	373	2700	525	66	54	43	86	86	83
9	74	97	3470	208	2690	524	66	54	499	86	86	83
10	74	97	4270	208	2450	440	67	54	806	87	87	85
11	74	97	4000	170	1700	365	68	54	1100	88	85	84
12	74	97	3860	136	1190	370	68	53	1630	88	85	86
13	74	220	4150	330	875	404	66	51	1140	88	85	84
14	76	946	4130	265	694	1420	66	51	811	88	86	83
15	79	1560	4100	80	697	2800	66	52	681	88	86	84
16	79	1560	4070	79	698	2790	66	51	417	87	87	85
17	79	1550	4030	79	1130	2780	66	50	327	87	87	85
18	79	1550	3990	79	1490	2370	64	49	149	86	86	85
19	137	1550	3490	79	2010	1880	64	49	106	86	83	86
20	180	1540	2050	79	3220	1460	64	42	88	86	84	87
21	180	1540	1020	79	3490	1030	64	28	88	85	84	88
22	180	1540	600	79	3470	717	64	27	88	85	84	86
23	180	1530	521	296	3450	716	62	27	88	85	85	87
24	180	1530	520	268	2620	716	62	27	88	86	84	88
25	180	1530	357	82	2760	546	62	27	88	86	83	89
26	180	1520	212	82	2750	208	62	32	88	86	84	89
27	180	1530	212	82	2740	98	61	33	88	86	85	89
28	180	1560	212	82	2720	79	60	29	88	86	85	89
29	299	1570	212	83	---	66	60	27	88	83	84	90
30	621	1580	212	309	---	66	60	26	88	85	83	90
31	1250	---	212	254	---	66	---	26	---	85	81	---
TOTAL	7986	39513	65050	5587	52113	34350	1936	1371	8924	2683	2630	2569
MEAN	258	1317	2098	180	1861	1108	64.5	44.2	297	86.5	84.8	85.6
MAX	1250	1950	4270	380	3490	2800	68	60	1630	89	87	90
MIN	74	97	212	79	82	66	60	26	26	83	81	83

CAL YR 1985	TOTAL 369140.12	MEAN	1011	MAX	5920	MIN	.32
WTR YR 1986	TOTAL 224712	MEAN	616	MAX	4270	MIN	26

03306000 GREEN RIVER NEAR CAMPBELLSVILLE, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to current year.
INSTRUMENTATION.--Temperature recorder since October 31, 1963.
REMARKS.--Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 31.0°C, Aug. 3-5, 1964; minimum, 0.0°C, on many days during 1963-66.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 25.5°C, many days in July; minimum, 4.0°C, many days in Dec., Jan., and Feb.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	20.0	20.0	16.5	16.5	13.0	13.0	4.5	4.5	4.0	4.0	6.0	6.0
2	20.0	20.0	16.0	16.0	13.0	13.0	4.5	4.5	4.0	4.0	6.0	6.0
3	20.0	19.5	16.0	16.0	12.0	11.5	4.5	4.5	4.0	4.0	6.0	6.0
4	19.5	19.5	16.0	16.0	11.5	11.5	4.5	4.5	4.0	4.0	6.0	5.5
5	19.5	19.5	16.0	16.0	11.5	11.0	4.5	4.5	4.0	4.0	5.5	5.5
6	19.5	19.0	16.0	16.0	11.0	10.5	5.0	4.5	4.5	4.5	5.5	5.5
7	19.0	19.0	16.0	15.5	10.0	10.0	4.5	4.5	4.5	4.5	6.0	5.5
8	19.5	19.0	15.5	14.5	10.0	10.0	4.5	4.0	4.5	4.5	6.0	6.0
9	21.0	19.5	14.5	14.5	10.0	10.0	4.0	4.0	4.5	4.5	6.0	6.0
10	19.5	19.5	14.0	14.0	9.5	9.0	4.0	4.0	4.5	4.5	6.5	6.0
11	20.0	19.5	14.0	14.0	8.5	8.5	4.0	4.0	5.0	4.5	7.0	6.5
12	19.5	19.5	14.0	14.0	8.5	8.5	4.5	4.5	5.0	5.0	9.0	7.0
13	19.5	19.5	14.0	14.0	8.5	8.5	4.5	4.5	5.5	5.5	9.0	8.0
14	19.5	19.5	14.0	14.0	8.5	8.0	4.5	4.5	5.5	5.5	8.5	8.5
15	19.5	19.5	14.5	14.0	7.0	6.5	4.5	4.5	5.5	5.0	8.5	8.5
16	19.5	19.5	14.5	14.5	6.5	6.0	4.5	4.0	5.0	5.0	9.5	8.5
17	19.5	19.5	14.5	14.5	6.0	6.0	4.0	4.0	5.0	5.0	9.5	9.5
18	19.5	19.5	14.5	14.5	6.0	6.0	4.5	4.5	5.0	5.0	9.5	8.5
19	19.5	19.5	14.5	14.5	6.0	6.0	4.5	4.5	5.0	5.0	9.0	9.0
20	19.5	19.5	14.5	14.5	6.0	5.5	4.5	4.5	5.5	5.5	9.5	9.0
21	19.5	19.5	14.5	14.5	5.5	5.5	4.5	4.5	6.0	5.5	9.5	9.5
22	19.5	19.5	14.5	14.5	5.5	5.0	4.5	4.5	6.0	6.0	9.5	9.5
23	19.5	19.5	14.5	14.5	5.0	5.0	4.5	4.5	6.0	6.0	9.5	9.0
24	19.5	19.5	14.5	14.5	5.0	5.0	4.5	4.5	6.0	6.0	9.5	9.0
25	19.5	19.5	14.0	13.5	5.5	5.0	4.5	4.5	6.0	6.0	9.5	9.5
26	19.5	19.5	13.5	13.5	5.0	4.5	4.5	4.5	6.0	6.0	10.0	9.5
27	19.5	19.5	13.5	13.5	4.5	4.0	4.5	4.5	6.0	6.0	11.5	10.0
28	19.5	19.5	13.5	13.5	4.0	4.0	4.5	4.0	6.0	6.0	12.0	11.0
29	19.5	16.0	13.0	13.0	4.0	4.0	4.0	4.0	---	---	12.0	10.5
30	16.0	15.5	13.0	13.0	4.0	4.0	4.5	4.0	---	---	13.0	10.5
31	16.5	16.0	---	---	4.5	4.5	4.0	4.0	---	---	13.5	11.5

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	11.5	16.5	15.5	24.0	22.0	24.0	23.5	23.5	23.0	23.0	23.0
2	14.5	11.5	18.0	16.0	22.5	19.0	24.5	23.5	23.0	23.0	23.0	23.0
3	14.5	13.0	18.0	16.5	23.5	22.0	24.5	23.5	23.0	23.0	23.0	23.0
4	14.0	11.5	17.0	16.0	21.5	21.5	24.5	23.5	23.5	23.0	23.0	23.0
5	14.5	11.5	16.5	14.5	22.5	21.5	24.5	24.0	23.5	23.0	23.0	22.0
6	14.5	11.5	17.0	15.0	23.0	22.0	25.0	24.0	23.0	22.0	23.0	22.0
7	15.5	12.0	18.5	15.5	23.0	22.0	25.0	24.5	23.5	23.0	22.0	22.0
8	16.0	14.5	19.0	17.0	23.0	22.0	25.0	24.5	23.0	22.0	22.0	22.0
9	15.0	14.0	19.5	18.5	22.5	14.5	24.5	24.5	23.0	22.0	22.0	22.0
10	14.5	13.0	19.0	19.0	14.5	14.5	24.5	24.5	23.0	22.0	22.0	21.5
11	14.5	12.0	19.0	18.5	15.0	14.5	24.5	24.5	23.0	22.0	21.5	21.5
12	14.5	13.5	19.0	18.5	15.0	14.5	24.5	24.0	23.5	23.0	21.5	21.5
13	15.5	13.5	20.0	19.0	15.0	15.0	24.5	24.0	23.5	23.0	22.0	21.5
14	15.0	12.0	19.5	18.5	15.0	15.0	24.5	24.0	23.5	23.0	22.0	21.5
15	14.0	13.0	19.5	18.0	15.0	14.5	24.5	24.5	23.5	23.0	21.5	21.0
16	13.5	13.5	19.5	18.5	14.5	14.0	25.0	24.5	23.5	23.0	21.5	21.0
17	13.5	13.5	21.0	19.5	21.0	14.0	25.5	24.5	23.5	23.0	21.5	21.0
18	14.0	13.0	20.0	19.5	21.5	21.0	25.5	25.0	23.5	23.0	21.0	20.5
19	14.0	13.0	20.0	19.5	23.0	21.5	25.5	25.0	23.5	23.0	20.5	20.5
20	13.5	13.0	20.0	19.5	23.0	22.0	25.5	25.0	23.5	23.0	21.0	20.5
21	13.5	13.0	20.0	19.5	23.5	22.0	25.5	25.0	24.0	23.0	21.0	20.5
22	14.0	13.5	21.0	19.0	23.5	23.0	25.5	25.0	23.5	23.0	21.0	21.0
23	14.5	13.0	19.5	19.0	23.5	23.0	26.0	25.5	23.5	23.0	21.0	20.5
24	15.0	13.5	21.0	19.5	23.5	22.0	25.5	25.0	24.0	23.0	21.0	20.5
25	15.5	13.5	21.0	20.0	23.5	23.0	25.5	25.0	24.0	23.0	21.0	21.0
26	16.5	13.5	20.5	20.0	23.5	23.5	25.5	25.0	23.5	23.0	21.0	21.0
27	16.5	14.5	21.0	21.0	23.5	23.0	25.0	25.0	23.5	23.0	21.5	21.0
28	15.5	13.5	21.0	21.0	23.5	23.0	25.5	25.0	23.5	23.0	21.5	21.0
29	17.0	13.5	23.0	21.0	24.0	23.5	25.0	23.0	23.5	23.0	21.5	21.5
30	18.0	15.5	23.5	22.0	24.0	23.5	23.5	22.0	23.0	23.0	21.5	21.5
31	---	---	24.0	22.0	---	---	23.0	23.0	23.0	23.0	---	---

03307000 RUSSELL CREEK NEAR COLUMBIA, KY

LOCATION.--Lat 37°07'09", long 85°23'38", Adair County, Hydrologic Unit 05110001, on left bank at downstream side of bridge on State Highway 61, 0.3 mi upstream from Butlers Fork, 5.0 mi west of Columbia, and at mile 26.9. Records include flow of Butlers Fork.

DRAINAGE AREA.--188 mi² (includes that of Butlers Fork), of which about 15 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1939 to current year. Prior to December 1939, monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1940. WSP 1335: 1953. WSP 1555: Drainage area. WRD KY-75-1: 1949(M), 1952(M), 1955(M), 1962(M), 1967(M), 1974(M).

GAGE.--Water-stage recorder. Datum of gage is 610.96 ft above National Geodetic Vertical Datum of 1929. Prior to June 25, 1953, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 20-Jan. 1, Jan. 8-16, 28-31, and Feb. 12-14. Records good except for estimated daily discharges, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--47 years, 292 ft³/s, 21.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,600 ft³/s, Sept. 1, 1982, gage height, 26.12 ft; minimum daily, 0.4 ft³/s, Sept. 25, 1952, Oct. 22-24, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of about 23 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 27	1530	*6,190	*14.58	Feb. 18	0630	4,880	12.91
Nov 28	0930	4,570	12.48	Mar. 13	1300	5,290	13.46

Minimum daily discharge, 10 ft³/s, Aug. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	145	501	66	57	212	92	48	73	38	49	50
2	231	116	492	74	62	189	89	47	73	126	54	74
3	88	165	328	74	247	180	86	45	61	91	49	55
4	58	582	266	73	463	163	83	42	88	52	52	41
5	46	609	230	71	299	151	80	42	68	40	53	32
6	38	350	203	66	424	146	78	42	152	35	52	29
7	33	257	172	64	939	138	78	42	307	32	52	34
8	31	210	155	52	498	128	76	42	701	30	62	41
9	28	170	141	44	342	121	72	42	370	28	70	46
10	26	145	129	49	279	119	67	42	580	28	59	50
11	25	131	140	48	254	122	66	37	247	121	63	52
12	24	120	249	53	190	150	64	36	153	105	52	166
13	22	113	575	60	155	3430	63	36	106	66	28	89
14	33	107	570	53	170	1140	61	42	84	43	21	45
15	186	101	353	44	202	692	59	115	71	37	10	36
16	79	105	277	50	300	443	58	120	61	42	11	31
17	47	334	230	56	2550	326	58	58	55	41	23	30
18	39	213	192	57	3340	269	58	46	48	34	48	33
19	34	167	151	68	1060	309	57	57	44	30	52	42
20	34	141	130	83	611	240	58	56	42	27	35	53
21	333	123	121	75	438	191	103	46	40	26	41	30
22	239	123	107	66	331	167	102	41	38	24	32	25
23	259	133	113	62	273	153	86	48	36	24	34	18
24	718	117	103	57	242	140	71	79	35	24	33	25
25	291	108	95	57	222	130	64	86	33	25	38	42
26	154	110	76	58	198	122	61	122	31	26	47	22
27	106	3740	83	55	228	118	57	221	30	29	78	12
28	82	3240	79	40	263	113	53	187	39	38	43	15
29	71	1390	75	44	---	105	52	201	60	44	34	18
30	278	698	72	50	---	100	51	140	40	45	30	26
31	209	---	68	52	---	96	---	92	--	49	29	---
TOTAL	3960	14063	6476	1821	14637	10103	2103	2300	3766	1400	1334	1262
MEAN	128	469	209	58.7	523	326	70.1	74.2	126	45.2	43.0	42.1
MAX	713	3740	575	83	3340	3430	103	221	701	126	78	166
MIN	22	101	68	40	57	96	51	36	30	24	10	12
CFSM	.68	2.49	1.11	.31	2.78	1.73	.37	.39	.67	.24	.23	.22
IN	.76	2.78	1.28	.36	2.90	2.00	.42	.46	.75	.28	.26	.25

CAL YR 1985 TOTAL 67366 MEAN 185 MAX 3740 MIN 15 CFSM .98 IN 13.33
WTR YR 1986 TOTAL 63225 MEAN 173 MAX 3740 MIN 10 CFSM .92 IN 12.51

GREEN RIVER BASIN

03308500 GREEN RIVER AT MUNFORDVILLE, KY

LOCATION.--Lat 37°16'05", long 85°53'10", Hart County, Hydrologic Unit 05110001, on right bank at downstream side of pier of bridge on U.S. Highway 31W at Munfordville, and at mile 225.9.

DRAINAGE AREA.--1,673 mi^2, of which about 180 mi^2 does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1915 to December 1922, October 1927 to September 1931, December 1936 to February 1937 (in WSP 838), October 1937 to current year. Monthly discharge only October 1937 to March 1938, published in WSP 1305. Gage-height records collected at same site since 1924 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1555: 1916(M), drainage area. WSP 1909: 1937.

GAGE.--Water-stage recorder. Datum of gage is 451.70 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 18, 1940, nonrecording gages at site 0.2 mi downstream at same datum. Oct. 18 to Nov. 29, 1940, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Green River Lake beginning February 1969 (station 03305990).

AVERAGE DISCHARGE.--60 years (1915-22, 1927-31, 1937-86), 2,709 ft^3/s, 21.99 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,800 ft/s, Mar. 1, 1962; maximum gage height, 57.72 ft, Mar. 1, 1962; minimum discharge, 39 ft^3/s, Sept. 2, 1921, gage height, 2.2 ft, site then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1913 reached a stage of 54.0 ft at former site, discharge, 67,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,700 ft^3/s, Feb. 18, gage height, 22.62 ft; minimum, 187 ft^3/s, Sept. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	661	1480	3570	587	628	3710	775	391	967	430	258	217
2	710	1910	3190	584	496	3520	747	379	930	428	253	221
3	899	1900	2850	562	517	3420	715	357	947	482	233	231
4	832	2120	1880	548	1430	3220	691	342	749	522	217	321
5	722	2950	1860	537	2310	2430	669	332	691	434	204	317
6	678	3100	2860	525	2760	1730	645	325	756	354	199	258
7	653	2620	2930	510	5980	1600	626	320	1950	318	206	228
8	634	2390	3050	560	6080	1290	623	316	5070	294	261	208
9	623	1910	2980	709	5000	1130	592	355	4730	284	295	196
10	493	777	3420	533	4310	1100	560	332	5580	283	261	190
11	266	573	4540	484	3930	1140	537	299	5040	373	243	196
12	229	515	5080	488	3020	1150	519	293	4100	558	377	877
13	219	492	5110	461	2320	6450	508	297	4100	480	367	1180
14	217	489	6240	403	1920	11300	497	312	2870	427	304	675
15	216	729	5960	663	1690	6360	487	1090	1940	358	267	448
16	262	1750	5390	458	1660	5640	480	1750	1660	432	272	311
17	492	2070	5060	341	4950	4820	470	991	1270	362	370	262
18	370	2200	4830	343	12900	4370	463	715	1080	292	424	244
19	294	2090	4610	376	12500	6850	457	674	888	277	314	244
20	274	1950	4150	443	6960	7280	466	755	718	262	253	393
21	280	1880	2790	491	5990	4400	522	715	653	246	257	525
22	394	1830	1710	483	5560	3210	601	596	575	236	242	454
23	789	1790	1240	444	5060	2340	623	514	530	219	223	403
24	839	1790	1100	402	4750	2070	554	548	502	226	220	628
25	1480	1780	1060	656	3920	1880	509	836	472	222	208	552
26	968	1790	1010	486	3730	1710	483	994	440	222	205	414
27	720	3230	714	372	3690	1360	467	1930	414	227	206	338
28	601	7830	658	333	3790	1080	452	2600	394	473	221	305
29	530	8220	638	337	---	968	426	2060	383	265	237	270
30	621	5220	587	325	---	890	407	1590	376	226	240	247
31	1150	---	590	332	---	824	---	1270	---	253	218	---
TOTAL	18118	69375	91647	14776	117851	99242	16571	24278	50775	10465	8055	11353
MEAN	584	2313	2956	477	4209	3201	552	783	1693	338	260	378
MAX	1480	8220	6240	709	12900	11300	775	2600	5580	558	424	1180
MIN	216	489	587	325	496	824	407	293	376	219	199	190

CAL YR 1985 TOTAL 730271 MEAN 2001 MAX 10600 MIN 216
WTR YR 1986 TOTAL 532506 MEAN 1459 MAX 12900 MIN 190

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1949 to September 1973, October 1978 to September 1980, October 1983 to current year.
WATER TEMPERATURES: October 1950 to September 1980, October 1982 to current year.
SUSPENDED-SEDIMENT DISCHARGE: April 1951 to current year.
REMARKS.--Sediment samples collected daily by a local observer. Water temperature recorded when sample is collected and conductance is determined when samples are analyzed.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (Water years 1949-73, 1984-86): Maximum daily, 9,420 microsiemens, Oct. 10, 1959; minimum daily, 59 microsiemens, Mar. 25, 1952.
WATER TEMPERATURE (Water years 1950-77, 1980, 1983-86): Maximum daily, 29.0°C, July 13-17, 1980; minimum daily, 0.0°C, on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,180 mg/L, June 14, 1952; minimum daily mean, 0 mg/L, on several days during winter periods.
SEDIMENT LOADS: Maximum daily, 157,000 tons, Mar. 1, 1962; minimum daily, 0 ton, on several days during winter periods.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 535 microsiemens, Aug. 21; minimum daily, 182 microsiemens, Dec. 11.
WATER TEMPERATURE: Maximum daily, 27.0°C, July 19, 20; minimum daily, 0.0°C, Jan. 10, 28.
SEDIMENT CONCENTRATION: Maximum daily mean, 715 mg/L, Nov. 28; minimum daily mean, 3 mg/L, Dec. 30, Jan. 29.
SEDIMENT LOADS: Maximum daily, 21,100 tons, Feb. 18; minimum daily, 2.7 tons, Jan. 29.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1985						
07...	1220	663	265	16.0	15	27
NOV						
19...	1125	2110	250	18.0	68	387
JAN 1986						
22...	1040	484	395	6.5	7	9.1
FEB						
24...	1115	4740	225	6.0	54	691
APR						
08...	1220	630	375	21.0	4	6.5
MAY						
21...	1240	722	395	17.5	35	68
JUN						
30...	1240	361	450	26.5	5	5.2
AUG						
12...	0925	299	360	23.0	24	19

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	270	330	253	333	406	210	340	372	350	---	331	357
2	255	248	248	333	416	220	340	372	350	385	330	335
3	260	220	264	333	302	200	340	372	350	380	310	335
4	296	214	264	333	312	200	350	372	320	380	330	335
5	312	286	275	338	354	220	340	377	355	380	320	341
6	276	258	220	338	270	230	360	377	350	380	331	335
7	260	220	220	338	239	240	340	377	290	370	353	349
8	253	220	214	307	244	250	350	377	280	380	395	341
9	253	214	209	302	224	270	339	377	265	380	385	380
10	242	236	204	276	224	280	339	383	252	370	345	381
11	270	275	182	260	213	280	366	388	250	375	335	381
12	286	330	192	291	213	280	366	400	250	350	341	462
13	297	363	220	307	234	300	366	400	250	400	531	310
14	319	374	226	338	250	210	366	388	250	330	391	260
15	352	385	214	338	265	240	377	422	270	370	369	335
16	374	346	209	354	265	220	377	444	270	331	345	301
17	374	209	204	281	291	210	372	305	270	339	399	321
18	396	236	204	291	223	210	372	316	290	350	341	335
19	374	236	187	343	203	220	366	344	290	469	330	349
20	396	220	187	380	234	220	372	405	290	331	351	335
21	429	220	198	385	218	250	372	377	320	331	535	321
22	440	220	224	395	218	250	366	377	305	339	378	370
23	412	220	234	442	213	270	372	355	320	339	330	335
24	319	220	276	432	203	280	400	355	350	331	305	391
25	363	220	276	406	195	280	366	350	350	339	320	375
26	352	209	276	395	218	270	361	370	355	331	320	311
27	336	214	276	291	218	270	355	350	355	330	320	330
28	324	231	276	302	218	300	361	350	370	300	325	387
29	330	236	307	374	---	310	366	310	370	300	325	349
30	330	248	307	395	---	330	366	310	355	391	330	342
31	324	---	312	395	---	320	---	350	---	491	341	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	16.0	14.0	2.0	4.0	5.0	15.0	20.0	21.0	---	22.0	19.0
2	15.0	15.0	11.0	2.0	5.0	5.0	16.0	18.0	21.0	24.0	22.0	20.0
3	15.0	16.0	9.0	4.0	7.0	5.0	17.0	17.0	20.0	23.0	22.0	20.0
4	15.0	14.0	8.0	3.0	10.0	6.0	17.0	16.0	21.0	23.0	21.0	22.0
5	15.0	12.0	7.0	3.0	12.0	5.0	17.0	17.0	21.0	23.0	21.0	22.0
6	14.0	13.0	8.0	3.0	11.0	6.0	17.0	19.0	21.0	24.0	22.0	20.0
7	14.0	13.0	8.0	3.0	10.0	6.0	17.0	19.0	22.0	24.0	22.0	20.0
8	14.0	12.0	9.0	1.0	9.0	5.0	19.0	20.0	22.0	25.0	22.0	18.0
9	15.0	13.0	9.0	1.0	6.0	7.0	17.0	21.0	21.0	26.0	22.0	17.0
10	16.0	14.0	10.0	.0	5.0	10.0	15.0	21.0	20.0	26.0	23.0	19.0
11	17.0	15.0	11.0	1.0	2.0	10.0	14.0	22.0	21.0	25.0	23.0	20.0
12	18.0	15.0	10.0	3.0	2.0	12.0	15.0	22.0	20.0	25.0	23.0	20.0
13	19.0	16.0	10.0	2.0	2.0	13.0	16.0	21.0	20.0	25.0	22.0	20.0
14	19.0	16.0	7.0	2.0	1.0	13.0	16.0	21.0	18.0	25.0	23.0	19.0
15	20.0	16.0	7.0	1.0	1.0	13.0	16.0	20.0	19.0	25.0	23.0	19.0
16	18.0	18.0	7.0	1.0	3.0	12.0	15.0	21.0	20.0	25.0	23.0	19.0
17	18.0	15.0	6.0	5.0	6.0	10.0	14.0	20.0	21.0	26.0	23.0	18.0
18	18.0	15.0	6.0	5.0	10.0	10.0	14.0	21.0	20.0	26.0	23.0	20.0
19	19.0	16.0	8.5	6.0	11.0	12.0	14.0	19.0	20.0	27.0	23.0	21.0
20	19.0	15.0	5.0	5.0	10.0	12.0	16.0	17.0	21.0	27.0	23.0	20.0
21	18.0	12.0	4.0	5.0	10.0	10.0	14.0	16.0	22.0	26.0	23.0	21.0
22	17.0	11.0	4.0	7.0	7.0	8.0	13.0	16.0	23.0	25.0	23.0	22.0
23	18.0	11.0	5.0	5.0	6.0	9.0	12.0	16.0	24.0	25.0	24.0	22.0
24	18.0	12.0	3.0	4.0	6.0	10.0	13.0	17.0	24.0	25.0	23.0	21.0
25	18.0	13.0	2.0	5.0	5.0	11.0	15.0	18.0	23.0	25.0	21.0	22.0
26	16.0	15.0	2.0	4.0	6.0	13.0	17.0	19.0	23.0	26.0	22.0	22.0
27	17.0	15.0	2.0	1.0	6.0	14.0	18.0	19.0	23.0	25.0	23.0	22.0
28	17.0	15.0	2.0	.0	5.0	13.0	19.0	19.0	24.0	26.0	22.0	22.0
29	15.0	14.0	2.0	2.0	---	13.0	19.0	19.0	23.0	26.0	18.0	23.0
30	15.0	13.0	1.0	1.0	---	14.0	19.0	19.0	26.5	25.0	18.0	23.0
31	15.0	---	3.0	1.0	---	15.0	---	20.0	---	24.0	19.0	---

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	661	24	42	1480	74	298	3570	106	1040
2	710	26	50	1910	124	639	3180	43	369
3	899	42	105	1900	93	475	2850	81	624
4	832	32	73	2120	101	587	1880	35	183
5	722	23	44	2950	188	1520	1860	26	135
6	678	18	33	3100	188	1580	2860	89	695
7	653	19	33	2620	103	729	2930	112	883
8	634	24	41	2390	76	491	3050	92	756
9	623	22	36	1910	77	402	2980	71	575
10	493	18	24	777	33	71	3420	110	1080
11	268	14	10	573	23	36	4540	197	2430
12	229	16	9.6	515	15	21	5080	230	3160
13	219	14	8.1	492	19	26	5110	147	2030
14	217	14	8.3	489	22	28	6240	76	1280
15	216	14	8.4	729	27	59	5960	80	1280
16	262	15	11	1750	125	604	5390	212	3080
17	492	21	28	2070	106	594	5060	140	1920
18	370	16	16	2200	97	579	4830	35	462
19	294	17	14	2090	98	555	4610	45	550
20	274	18	13	1950	107	564	4150	82	925
21	280	14	11	1880	70	356	2790	23	177
22	394	24	26	1830	55	274	1710	23	106
23	789	38	80	1790	61	293	1240	16	55
24	839	47	114	1790	68	328	1100	10	31
25	1480	101	404	1780	63	304	1060	6	16
26	968	60	160	1790	67	325	1010	3	7.1
27	720	26	51	3230	184	2560	714	8	15
28	601	26	42	7830	715	15400	658	5	9.1
29	530	23	33	8220	387	8690	638	4	6.1
30	621	24	42	5220	200	2850	587	3	5.3
31	1150	67	214	---	---	---	590	5	8.8
TOTAL	18118	---	1784.4	69375	---	41238	91647	---	23893.4

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		JANUARY			FEBRUARY			MARCH	
1	587	4	5.6	628	6	10	3710	67	671
2	584	4	6.4	496	9	12	3520	67	637
3	562	4	6.5	517	11	15	3420	64	593
4	548	5	7.5	1430	46	222	3220	73	637
5	537	8	12	2310	127	788	2430	45	298
6	525	7	11	2760	151	1170	1730	36	168
7	510	5	6.7	5980	669	11600	1600	43	185
8	560	5	7.4	6080	412	6880	1290	18	64
9	709	7	13	5000	184	2500	1130	18	55
10	533	9	12	4310	121	1410	1100	26	77
11	484	8	11	3930	92	985	1140	24	72
12	488	10	14	3020	23	195	1150	24	75
13	461	8	9.4	2320	17	104	6450	520	12900
14	403	8	9.0	1920	28	145	11300	452	14300
15	663	8	14	1690	25	115	6360	242	4140
16	458	7	9.0	1660	24	109	5640	237	3600
17	341	8	7.4	4950	106	1950	4820	173	2250
18	343	8	7.3	12900	593	21100	4370	206	2420
19	376	11	11	12500	243	8340	6850	485	9660
20	443	10	12	6960	221	4080	7280	498	10200
21	491	8	10	5990	213	3450	4400	171	2040
22	483	10	13	5560	112	1690	3210	145	1270
23	444	14	17	5060	103	1400	2340	51	328
24	402	6	6.2	4750	107	1370	2070	44	247
25	656	8	15	3920	102	1080	1880	55	280
26	486	9	12	3730	79	791	1710	57	261
27	372	6	5.6	3690	78	778	1360	34	126
28	333	4	4.0	3790	86	882	1080	27	78
29	337	3	2.7	---	---	---	968	19	51
30	325	4	3.9	---	---	---	890	17	41
31	332	5	4.3	---	---	---	824	17	38
TOTAL	14776	---	285.9	117851	---	73171	99242	---	67762

GREEN RIVER BASIN

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			MAY			JUNE	
1	775	15	31	391	18	19	967	52	137
2	747	12	25	379	19	20	930	41	103
3	715	8	16	357	20	19	947	49	124
4	691	9	16	342	17	15	749	41	83
5	669	6	12	332	19	17	691	30	55
6	645	6	11	325	20	18	756	39	84
7	626	5	8.6	320	19	16	1950	226	1310
8	623	6	9.9	316	18	15	5070	666	9960
9	592	9	15	355	20	20	4730	542	7060
10	560	9	13	332	22	20	5580	504	7840
11	537	7	9.7	299	21	17	5040	357	4950
12	519	6	8.7	293	21	17	4100	238	2670
13	508	10	14	297	22	18	4100	254	2860
14	497	11	15	312	20	17	2870	145	1130
15	487	8	10	1090	176	704	1940	102	534
16	480	10	13	1750	259	1290	1660	66	294
17	470	8	9.6	991	109	294	1270	53	182
18	463	5	6.6	715	56	108	1080	32	94
19	457	7	8.5	674	49	90	888	26	62
20	466	11	14	755	62	126	718	18	34
21	522	8	11	715	38	74	653	17	30
22	601	11	17	596	32	52	575	19	29
23	623	11	18	514	24	33	530	13	18
24	554	9	13	548	31	46	502	11	14
25	509	10	13	836	46	107	472	11	14
26	483	8	9.9	994	82	225	440	10	12
27	467	5	6.8	1930	174	957	414	6	6.2
28	452	6	7.2	2600	225	1580	394	8	8.5
29	426	9	10	2060	150	834	383	9	9.1
30	407	9	10	1590	104	449	376	11	12
31	---	---	---	1270	61	210	---	---	---
TOTAL	16571	---	382.5	24278	---	7427	50775	---	39718.8
		JULY			AUGUST			SEPTEMBER	
1	430	15	17	258	27	19	217	29	17
2	428	15	18	253	21	14	221	26	15
3	482	14	18	233	18	12	231	24	15
4	522	14	20	217	17	10	321	33	29
5	434	19	22	204	19	10	317	30	26
6	354	20	19	199	18	9.8	258	30	21
7	318	19	16	206	18	10	228	24	15
8	294	20	16	261	25	17	208	23	13
9	284	18	13	295	21	17	196	24	13
10	283	33	25	261	26	18	190	22	11
11	373	20	20	243	29	19	196	25	14
12	558	17	25	377	33	34	877	151	450
13	480	17	22	367	34	33	1180	194	648
14	427	19	21	304	31	26	675	120	219
15	358	20	19	267	38	27	448	52	64
16	432	70	87	272	39	29	311	37	31
17	362	42	42	370	49	50	262	30	21
18	292	23	18	424	66	75	244	29	19
19	277	24	18	314	54	45	244	28	18
20	262	24	17	253	53	36	393	36	41
21	246	29	20	257	44	31	525	48	68
22	236	24	15	242	37	24	454	37	45
23	219	21	12	223	29	18	403	50	55
24	226	21	13	220	29	17	628	66	113
25	222	23	14	208	26	15	552	48	71
26	222	23	14	205	29	16	414	38	42
27	227	24	15	206	26	14	338	32	29
28	473	19	24	221	26	15	305	30	24
29	265	24	17	237	28	18	270	25	18
30	226	41	25	240	25	16	247	25	16
31	253	24	16	218	26	16	---	---	---
TOTAL	10455	---	658	8055	---	710.8	11353	---	2181
YEAR	532506		259212.8						

03310300 NOLIN RIVER AT WHITE MILLS, KY

LOCATION.--Lat 37°33'03", long 86°02'43", Hardin County, Hydrologic Unit 05110001, on right bank, 0.8 mi southwest of White Mills, 1.6 mi downstream from bridge on State Highway 84, and at mile 78.7.

DRAINAGE AREA.--357 mi², of which about 120 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 583.08 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 8, 1960, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--27 years, 489 ft³/s, 18.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft³/s, Apr. 29, 1970, gage height, 34.86 ft; minimum, 31 ft³/s, Oct. 1, 1959, September 1964, gage height, 1.52 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1937 reached a stage of about 34 ft which is the highest since 1854. Flood of 1957 reached a stage of about 31 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 7	0800	*2,940	*11.34	Mar. 13	1700	2,720	10.79

Minimum daily discharge, 49 ft³/s, Oct. 13, Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	175	784	192	124	446	347	117	258	121	66	53
2	107	163	742	185	499	413	323	113	374	268	66	53
3	82	170	614	181	969	390	305	107	316	212	65	55
4	69	241	539	177	1600	369	291	104	260	153	62	56
5	63	284	496	170	1650	348	269	102	278	131	59	55
6	58	285	459	164	1420	332	257	101	284	118	58	53
7	55	249	418	158	2690	318	251	98	527	111	58	51
8	52	222	385	150	1820	291	243	98	422	107	84	50
9	51	198	360	142	1300	273	226	101	424	105	106	49
10	51	180	336	140	1050	266	214	95	649	118	81	49
11	51	167	338	140	919	271	207	93	453	184	74	54
12	50	159	850	137	801	583	198	93	620	152	72	400
13	49	286	671	134	698	2320	191	99	472	142	68	259
14	172	644	702	131	647	2340	186	134	381	121	63	116
15	645	476	528	128	618	1320	179	679	336	108	60	85
16	383	660	529	124	585	978	173	514	301	100	61	73
17	218	1060	482	123	1350	801	169	283	271	94	103	67
18	165	697	436	125	2150	694	166	219	245	87	96	64
19	140	563	381	149	1710	1760	161	191	224	86	76	63
20	146	477	351	213	1210	1590	161	186	208	89	67	75
21	220	406	331	200	982	1000	171	173	196	84	62	81
22	228	364	307	181	830	842	186	155	185	82	60	82
23	231	333	301	168	726	737	167	144	174	80	58	77
24	338	300	293	156	661	640	155	140	167	78	56	205
25	302	273	274	151	610	579	146	149	155	76	54	133
26	238	375	243	149	558	531	142	193	143	75	54	95
27	203	1800	230	145	539	492	138	583	138	72	56	145
28	181	1390	222	133	494	455	130	636	133	71	64	125
29	165	1240	212	131	---	422	124	414	128	71	60	94
30	170	945	200	131	---	393	121	336	124	70	55	78
31	186	---	195	126	---	367	---	291	---	69	53	---
TOTAL	5133	14782	13272	4734	29210	22561	5997	6741	8846	3435	2077	2895
MEAN	166	493	428	153	1043	728	200	217	295	111	67.0	96.5
MAX	645	1800	850	213	2690	2340	347	679	649	268	106	400
MIN	49	159	195	123	124	266	121	93	124	69	53	49
CFSM	.46	1.38	1.20	.43	2.92	2.04	.56	.61	.83	.31	.19	.27
IN	.53	1.54	1.38	.49	3.04	2.35	.62	.70	.92	.36	.22	.30

CAL YR 1985 TOTAL 119095 MEAN 326 MAX 2970 MIN 49 CFSM .91 IN 12.41
WTR YR 1986 TOTAL 119683 MEAN 328 MAX 2690 MIN 49 CFSM .92 IN 12.47

03310400 BACON CREEK NEAR PRICEVILLE, KY

LOCATION.--Lat 37°21'31", long 85°59'53", Hart County, Hydrologic Unit 05110001, on right bank, 1.2 mi southwest of Priceville, 1.3 mi downstream from small unnamed tributary, 2.1 mi upstream from unnamed tributary, and at mile 7.2.

DRAINAGE AREA.--85.4 mi², of which about 31 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 568.13 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 9-10, 14-17. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--27 years, 58.5 ft³/s, 9.30 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,800 ft³/s, May 7, 1984, gage height, 20.11 ft; minimum, 4.4 ft³/s, Sept. 12-15, Nov. 14, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of November 1957 reached a stage of 21.8 ft, from floodmark. Floods in January 1937 and April 1957 reached a stage of about 8 ft lower than flood in November 1957, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 15	0800	*299	*4.16				

Minimum daily discharge, 6.2 ft³/s, Aug. 30, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	13	34	19	15	44	39	18	31	15	12	6.8
2	13	12	33	18	19	41	37	17	29	16	10	7.5
3	9.8	16	31	18	51	40	36	17	27	15	9.4	7.7
4	8.3	20	28	17	72	38	34	16	26	14	9.2	7.7
5	7.7	18	26	17	67	36	33	16	26	13	8.7	7.3
6	7.1	16	26	16	81	35	32	16	29	13	8.1	7.0
7	7.2	15	24	16	173	33	31	16	40	13	8.6	8.4
8	7.0	14	23	15	107	31	30	15	35	13	9.4	6.5
9	7.0	13	22	14	89	30	29	15	52	12	8.9	6.4
10	7.0	13	21	14	77	30	28	15	76	12	9.4	6.5
11	7.3	12	42	15	69	30	27	15	47	11	9.1	7.3
12	8.4	12	85	15	61	47	26	15	40	12	8.9	13
13	7.0	14	53	14	55	214	26	15	36	12	8.2	19
14	7.0	16	52	13	53	140	26	20	32	11	7.7	9.5
15	12	17	43	13	52	102	25	236	29	11	7.5	7.4
16	15	31	39	12	53	87	24	80	27	11	7.6	6.9
17	11	47	36	12	145	74	24	51	25	10	7.9	6.8
18	10	29	33	14	158	68	23	42	24	10	9.1	6.9
19	10	25	31	20	119	175	23	38	23	9.6	8.3	8.1
20	11	23	29	23	100	115	24	37	22	9.6	7.4	9.3
21	14	20	28	21	88	91	30	33	20	9.3	6.7	11
22	14	19	26	19	76	80	28	30	20	9.2	6.6	8.6
23	16	18	25	18	68	71	25	30	18	9.2	6.5	8.7
24	25	17	25	17	62	65	23	30	17	9.2	6.8	11
25	20	16	24	17	58	59	22	28	17	9.2	6.3	11
26	15	17	25	17	53	55	22	36	16	9.2	6.6	9.9
27	14	31	21	16	52	52	21	66	16	9.2	7.5	7.4
28	14	48	21	17	49	49	20	56	15	9.4	6.5	7.3
29	13	48	20	16	---	46	19	45	15	9.7	6.3	7.4
30	13	38	20	15	---	43	18	38	15	9.2	6.2	7.0
31	13	---	19	15	---	41	---	34	---	13	6.2	---
TOTAL	360.8	648	965	503	2122	2062	805	1136	845	349.0	247.6	255.3
MEAN	11.6	21.6	31.1	16.2	75.8	66.5	26.8	36.6	28.2	11.3	7.99	8.51
MAX	25	48	85	23	173	214	39	236	76	16	12	19
MIN	7.0	12	19	12	15	30	18	15	15	9.2	6.2	6.4
CFSM	.14	.25	.36	.19	.89	.78	.31	.43	.33	.13	.09	.10
IN	.16	.28	.42	.22	.92	.90	.35	.49	.37	.15	.11	.11

CAL YR 1985	TOTAL	11032.4	MEAN	30.2	MAX	403	MIN	4.9	CFSM	.35	IN	4.81
WTR YR 1986	TOTAL	10298.7	MEAN	28.2	MAX	236	MIN	6.2	CFSM	.33	IN	4.49

BEST COPY AVAILABLE

03311000 NOLIN RIVER AT KYROCK, KY

LOCATION.--Lat 37°16'42", long 86°14'51", Edmonson County, Hydrologic Unit 05110001, in intake structure of Nolin River Dam on Nolin River, 0.3 mi upstream from Dismal Creek, 1.1 mi northeast of Kyrock, and at mile 7.8.

DRAINAGE AREA.--703 mi², of which about 223 mi² does not contribute directly to surface runoff. Area at site used Oct. 1, 1960, to Sept. 30, 1973, 707 mi².

PERIOD OF RECORD.--October 1930 to March 1932, July 1939 to September 1950, October 1960 to current year.

GAGE.--Water-stage recorder and outflow gate dials. Datum of gage above National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1932, nonrecording gage at site 1.3 mi upstream at datum 420.91 ft. June 30, 1939, to Dec. 20, 1940, nonrecording gage, and Dec. 21, 1940, to Sept. 30, 1950, water-stage recorder at site 11.6 mi upstream at datum 448.36 ft. Oct. 1, 1960, to Sept. 30, 1973, water-stage recorder at site 0.3 mi downstream at datum 400.00 ft. Oct. 1, 1960, to Sept. 30, 1970, auxiliary water-stage recorder on Green River at lock 6, at Brownsville, 9.6 mi downstream.

REMARKS.--No estimated daily discharge. Records good. Flow regulated since March 1963 by Nolin Lake (station 03310900). Discharge records computed using gate openings.

COOPERATION.--Record of gate operation furnished by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--38 years (1930-31, 1939-50, 1960-86), 932 ft³/s, 18.00 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,700 ft³/s, Jan. 30, 1932; maximum gage height, 59.27 ft, Mar. 2, 1962 (backwater from Green River), at site and datum then in use; no flow at times when gates are closed.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1854, 26.35 ft, in January 1937, from floodmarks, at site and datum used in 1939-50.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,650 ft³/s, Dec. 2; minimum daily, 38 ft³/s, May 9-14, July 22, 23 and Jul. 25 to Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	334	51	623	712	186	641	53	51	903	264	38	228
2	394	4140	2820	712	186	641	53	51	598	264	38	850
3	454	4110	4590	710	418	641	53	51	404	264	38	1060
4	452	4070	4540	708	623	514	53	51	404	264	38	1080
5	452	4020	4480	706	636	437	53	51	404	264	38	1170
6	452	3970	4420	706	646	437	53	51	404	264	38	1340
7	451	3920	4360	704	661	437	53	51	405	264	38	1320
8	450	2270	4200	702	673	437	53	44	406	264	38	1320
9	450	657	2490	700	680	437	53	38	406	264	38	1320
10	450	659	717	485	2620	437	53	38	675	264	38	983
11	383	658	710	186	4520	437	53	38	1170	263	88	1310
12	51	658	716	186	4470	438	53	38	1390	262	104	1440
13	51	428	718	186	4410	444	53	38	1380	262	104	1560
14	51	46	722	186	4350	449	54	38	1380	221	104	1560
15	1740	659	723	186	2460	455	54	220	1380	180	104	1550
16	2760	660	724	186	638	456	51	701	1380	180	104	1420
17	1500	662	725	187	643	458	51	905	1370	142	104	1280
18	320	664	725	188	656	460	51	906	539	104	104	1280
19	51	664	725	188	664	461	51	902	264	104	163	1280
20	51	665	725	188	672	465	51	539	259	104	182	1270
21	115	664	724	190	2590	683	51	404	264	45	182	1270
22	51	664	724	615	4470	792	51	404	264	38	182	1270
23	51	664	723	614	4420	793	51	596	264	38	181	1260
24	51	664	722	613	4350	794	51	565	264	443	180	1260
25	51	1120	721	611	2470	794	51	404	264	38	180	1250
26	51	656	720	610	638	476	51	592	264	38	180	1240
27	51	612	719	414	639	157	51	904	264	38	180	1240
28	51	616	718	184	640	130	51	906	264	38	180	1240
29	51	619	717	184	---	53	51	906	264	38	216	1230
30	51	628	716	184	---	53	51	906	264	38	228	1230
31	51	---	714	186	---	53	---	906	---	38	228	---
TOTAL	11922	40538	48371	13117	51029	14360	1562	12295	18161	5292	3658	37111
MEAN	385	1351	1560	423	1822	463	52.1	397	605	171	118	1237
MAX	2760	4140	4590	712	4520	794	54	906	1390	443	228	1560
MIN	51	46	623	184	186	53	51	38	259	38	38	228

CAL YR 1985 TOTAL 348979.5 MEAN 956 MAX 9950 MIN 1.5
WTR YR 1986 TOTAL 257416 MEAN 705 MAX 4590 MIN 38

03311500 GREEN RIVER AT LOCK 6, AT BROWNSVILLE, KY

LOCATION.--Lat 37°12'25", long 86°15'40", Edmonson County, Hydrologic Unit 05110001, on right bank 200 ft upstream from lock and dam 6, 0.8 mi downstream from Indian Creek, 1.0 mi northeast of Brownsville, 1.8 mi downstream from Nolin River, and at mile 181.7.

DRAINAGE AREA.--2,762 mi^2, of which about 690 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1924 to September 1931, December 1936 to February 1937 (in WSP 838), July 1938 to current year.

REVISED RECORDS.--WSP 1385: 1925-29, 1939, 1945. WSP 1555: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 413.03 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 26, 1940, nonrecording gage at same site and datum. Auxiliary gage since Oct. 1, 1948, upper nonrecording gage at lock 5, 13.6 mi downstream.

REMARKS.-Estimated daily discharge: May 15-20. Records fair. Flow regulated by Green River Lake (station 03305990) beginning February 1969 and Nolin Lake (station 03310900) beginning March 1963. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--55 years (1924-31, 1938-86), 4,355 ft^3/s, 21.41 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft^3/s, Jan. 24, 1937, gage height, 44.94 ft, from floodmarks; minimum daily, 120 ft^3/s, Sept. 18, 19, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 10, 1913, reached a stage of 42.8 ft, discharge, 103,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,400 ft^3/s, Feb. 19; minimum, 224 ft^3/s, July 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	2760	5710	1430	594	5000	1110	520	2320	610	408	518
2	1110	6100	6520	1430	873	4790	1060	509	1760	725	435	761
3	1170	5550	8700	1430	1040	4580	1020	483	1460	671	400	1180
4	1240	6670	7840	1380	1730	4370	1000	479	1300	701	367	1220
5	1230	7020	7040	1370	3170	3820	974	478	1150	726	343	1380
6	1180	7730	7460	1370	4200	2840	954	478	1120	643	340	1520
7	1180	7450	7930	1310	6850	2340	937	472	1540	587	340	1520
8	1170	5390	8110	1300	9070	2120	925	463	3190	564	380	1470
9	1140	3190	6790	1340	7590	1850	912	449	7190	542	450	1450
10	1140	2340	4060	1420	7800	1700	895	444	6180	531	489	1170
11	1050	1410	5480	898	10000	1680	865	441	8540	552	488	1400
12	694	1210	6650	716	9300	1870	851	439	7120	652	496	1920
13	572	1070	6790	716	8160	5370	843	435	6900	811	600	2880
14	533	686	7260	708	7370	14600	829	867	5870	860	636	2540
15	1270	1160	7930	668	5440	11900	821	1700	4430	815	600	2130
16	3010	1850	7180	867	2780	7760	768	3500	3620	766	614	1860
17	2330	2930	6650	680	5010	6720	1000	1600	3190	789	749	1540
18	850	3100	6300	597	13700	5890	674	1100	2260	613	724	1410
19	420	3150	5990	725	18000	9140	608	1300	1320	523	727	2260
20	356	2960	5730	805	13500	11400	642	1700	1090	436	678	2520
21	340	2820	4880	879	10000	8240	725	1240	954	400	623	2040
22	331	2730	3440	1180	11800	5830	751	1080	872	298	610	1830
23	519	2680	2520	1190	11200	4390	760	1080	812	224	600	1740
24	868	2640	2230	1140	10600	3580	768	1270	763	571	581	1840
25	1020	3870	2070	1120	8480	3220	745	1080	740	571	571	1860
26	1430	5750	1980	1350	5010	2700	713	1630	699	398	558	1700
27	959	3370	1810	1060	4980	2070	673	3040	660	229	580	1460
28	727	7030	1600	674	4960	1720	599	4200	637	254	588	1500
29	630	10700	1520	572	---	1390	563	4110	623	467	592	1450
30	678	9090	1500	598	---	1270	540	3300	618	459	591	1370
31	806	---	1440	598	---	1170	---	2790	---	377	573	---
TOTAL	31063	125406	161110	31521	203207	145320	24525	42677	78928	17365	16731	49439
MEAN	1002	4180	5197	1017	7257	4688	818	1377	2631	560	540	1648
MAX	3010	10700	8700	1430	18000	14600	1110	4200	8540	860	749	2880
MIN	331	686	1440	572	594	1170	540	435	618	224	340	518

CAL YR 1985 TOTAL 1228598 MEAN 3366 MAX 15600 MIN 291
WTR YR 1986 TOTAL 927292 MEAN 2541 MAX 18000 MIN 224

03311600 BEAVERDAM CREEK AT RHODA, KY

LOCATION.--Lat 37°09'18", long 86°13'35", Edmonson County, Hydrologic Unit 05110001, on right bank, 50 ft upstreamfrom bridge on State Highway 101, 0.1 mi south of Rhoda, 3.4 mi upstream from Shingle Machine Branch, and at mile 7.1.

DRAINAGE AREA.--10.9 mi².

PERIOD OF RECORD.--October 1972 to current year. Occasional low-flow measurements, water years 1961-72.

REVISED RECORDS.--WRD KY-84-1: 1975 (M).

GAGE.--Water-stage recorder. Datum of gage is 513.81 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 3-4, 9-16, Jul. 31 to Aug. 15. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--14 years, 18.7 ft³/s, 23.30 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,850 ft³/s, May 7, 1984, gage height, 11.38 ft; minimum, 0.25 ft³/s, Aug. 26-29, 1975.

REVISIONS.-- WRD KY 84-1: 1975 (M).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 1, 1962, reached a stage of about 16 ft, discharge not determined, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 19	0300	*549	*5.02				

Minimum discharge, 0.27 ft³/s, Aug. 24-26,30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	5.7	26	4.2	2.3	8.1	5.0	1.5	2.4	1.3	2.0	.79
2	6.9	5.5	17	4.1	2.6	7.6	4.8	1.5	2.1	2.0	1.2	.87
3	4.5	33	12	4.0	14	7.5	4.7	1.3	1.9	1.4	.75	.69
4	3.4	21	10	3.9	13	6.9	4.3	1.4	1.8	1.2	.63	.69
5	2.7	13	9.5	3.8	14	6.6	4.1	1.4	4.9	1.1	.54	.75
6	2.5	9.5	7.7	3.5	72	6.4	4.1	1.3	4.2	1.1	.46	.70
7	2.2	7.0	6.3	3.2	43	5.8	3.9	1.3	6.4	1.1	.63	.59
8	2.0	5.7	6.2	2.8	20	5.4	3.9	1.3	26	.94	1.6	.52
9	2.0	4.8	5.5	2.6	15	5.2	3.4	1.2	44	.93	.54	.49
10	2.1	4.4	4.9	2.4	12	5.2	3.0	1.2	35	.98	.42	.57
11	2.2	4.0	85	2.3	12	5.3	2.7	1.2	10	1.2	.66	7.5
12	2.2	3.9	36	2.2	11	84	2.6	1.3	9.3	1.2	.50	30
13	2.5	3.9	46	2.1	8.4	156	2.3	1.3	5.6	1.0	.44	1.6
14	2.8	4.0	23	2.0	9.9	33	2.1	1.5	4.1	.98	.39	.99
15	2.8	3.7	16	2.0	11	19	1.9	7.6	2.9	.99	.37	.85
16	2.9	8.1	14	2.4	50	13	1.9	1.9	2.2	.85	5.5	.78
17	2.9	7.6	12	2.8	157	11	1.9	1.4	1.9	.74	1.9	.77
18	2.8	5.6	9.8	3.6	77	36	1.9	1.3	1.7	.64	.89	.99
19	3.2	4.7	7.0	16	31	184	1.8	1.6	1.6	.60	.73	91
20	4.0	4.5	7.2	7.2	19	31	3.0	1.7	1.4	.58	.61	5.1
21	5.2	4.4	6.8	5.1	15	18	6.6	1.4	1.3	.60	.58	1.1
22	5.7	4.1	6.5	4.3	12	14	4.3	1.3	1.3	.57	.51	.85
23	15	4.1	6.8	3.2	10	11	2.7	2.7	1.3	.56	.42	.84
24	11	3.8	6.5	3.1	9.9	9.4	2.2	8.4	1.3	.53	.38	.82
25	5.4	3.4	5.8	3.1	8.7	8.2	2.0	10	1.2	.53	.32	.81
26	4.0	5.3	5.0	3.1	8.7	7.4	1.8	36	1.2	.52	.43	.81
27	3.1	49	4.7	2.6	13	7.2	1.7	44	1.2	.51	.60	.81
28	2.7	62	4.5	2.3	9.6	6.3	1.7	21	1.3	.75	.56	.81
29	2.8	27	4.5	2.5	---	5.9	1.7	9.9	1.3	.70	.46	.81
30	5.1	17	4.4	2.3	---	5.7	1.6	5.7	1.2	.60	.37	.81
31	6.1	---	4.3	2.2	---	5.3	---	3.5	---	1.1	.44	---
TOTAL	146.7	339.7	420.9	110.9	681.1	735.4	89.6	178.1	182.0	27.80	25.83	154.71
MEAN	4.73	11.3	13.6	3.58	24.3	23.7	2.99	5.75	6.07	.90	.83	5.16
MAX	24	62	85	16	157	184	6.6	44	44	2.0	5.5	91
MIN	2.0	3.4	4.3	2.0	2.3	5.2	1.6	1.2	1.2	.51	.32	.49
CFSM	.43	1.04	1.25	.33	2.23	2.17	.27	.53	.56	.08	.08	.47
IN	.50	1.16	1.44	.38	2.32	2.51	.31	.61	.62	.09	.09	.53

CAL YR 1985 TOTAL 4010.3 MEAN 11.0 MAX 299 MIN 1.1 CFSM 1.01 IN 13.69
WTR YR 1986 TOTAL 3092.74 MEAN 8.47 MAX 184 MIN .32 CFSM .78 IN 10.56

03313000 BARREN RIVER NEAR FINNEY, KY

LOCATION.--Lat 36°53'42", long 86°08'02", Allen County, Hydrologic Unit 05110002, on left bank, 1,200 ft upstream from Port Oliver Ford, 2,500 ft upstream from Difficult Creek, 0.5 mi downstream from Barren River Dam, 2.1 mi southwest of Finney, and at mile 78.7.

DRAINAGE AREA.--942 mi^2, of which 77 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1941 to September 1950, October 1960 to current year. Prior to October 1950 published as "at Port Oliver Ford." Monthly discharge only for October to December 1941, published in WSP 1305.

REVISED RECORDS.--WSP 1113: 1945-46(M). WRD KY-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 11, 1943, nonrecording gage, and Oct. 11, 1943 to Sept. 30, 1950, water-stage recorder at same site at datum 73.52 ft higher.

REMARKS.--No estimated daily discharge. Records fair except those below 30 ft^3/s, which are poor. Flow regulated by Barren River Lake (station 03312900) beginning March 1964. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--35 years, 1,500 ft^3/s, 21.62 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 78,000 ft^3/s, Feb. 27, 1962, gage height, 110.6 ft, from graph based on gage readings; no flow, Oct. 5-12, Dec. 17, 1976 (gates closed for repairs).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,560 ft^3/s, Feb. 27, gage height, 85.61 ft; minimum daily, 48 ft^3/s, Jul. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	2080	1720	506	235	3460	131	80	92	177	56	184
2	395	2080	2120	576	257	3420	131	78	89	182	56	1040
3	486	2100	2420	444	218	3190	129	77	83	176	55	1740
4	486	2120	2660	390	430	2190	129	74	81	176	55	1730
5	486	2130	2790	390	690	1490	128	74	81	176	55	1730
6	485	2140	3020	391	954	1480	130	74	81	175	55	1720
7	888	2150	3140	344	1520	1060	129	73	150	141	55	1710
8	1190	2160	3110	342	1990	715	130	74	350	120	56	939
9	1000	2190	3090	304	2080	724	129	71	430	118	56	837
10	364	2200	3060	281	2070	730	126	71	1370	108	58	1680
11	60	2210	2230	282	2050	729	125	70	2380	91	58	1680
12	58	1500	2370	284	2040	621	124	70	2700	90	56	1810
13	59	1030	3060	285	2020	516	125	70	2930	88	56	1940
14	60	2190	3300	282	1260	315	127	70	3090	88	56	1930
15	63	2180	3290	282	800	290	128	74	3070	96	58	1930
16	64	2180	3100	283	1060	277	124	72	2740	120	61	1920
17	63	2170	3230	287	1310	271	122	68	1890	120	60	1900
18	108	2160	3300	290	776	276	121	68	1030	120	176	1900
19	177	2150	3320	294	1510	279	119	74	483	120	229	1920
20	177	2130	3340	372	2730	174	124	72	483	121	226	1900
21	177	2290	3300	422	3010	153	122	67	480	124	222	1890
22	177	2420	3260	426	2990	143	120	66	357	123	218	2020
23	177	2400	2790	422	2970	141	99	298	259	122	213	2070
24	179	2390	2020	357	3080	138	83	161	211	91	208	2050
25	181	2370	1470	263	3230	136	86	123	182	58	205	2160
26	181	2060	1140	238	3380	137	84	138	181	58	216	2150
27	181	1760	1140	233	3510	132	83	166	180	58	207	2020
28	181	1730	910	229	3510	129	85	131	181	48	196	2000
29	316	1730	762	233	---	127	81	128	182	55	190	1970
30	631	1710	499	235	---	127	81	115	179	56	188	1950
31	1440	---	391	235	---	128	---	100	---	56	184	---
TOTAL	10734	62110	75352	10202	51680	23698	3455	2947	25995	3452	3840	52420
MEAN	346	2070	2431	329	1846	764	115	95.1	867	111	124	1747
MAX	1440	2420	3340	576	3510	3460	131	298	3090	182	229	2160
MIN	58	1030	391	229	218	127	81	66	81	48	55	184

CAL YR 1985 TOTAL 343124.9 MEAN 940 MAX 3470 MIN 4.5
WTR YR 1986 TOTAL 325885 MEAN 893 MAX 3510 MIN 48

03313700 WEST FORK DRAKES CREEK NEAR FRANKLIN, KY

LOCATION.--Lat 36°43'24", long 86°33'08", Simpson County, Hydrologic Unit 05110002, near left bank at upstream side of city of Franklin pumping plant intake, 20 ft upstream from dam, 0.8 mi downstream from bridge on State Highway 73 and 100, 1.5 mi east of Franklin, 3.3 mi downstream from Sharps Branch, and at mile 46.7.

DRAINAGE AREA.--110 mi², of which about 19 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 581.54 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1981, at site 0.8 mi upstream at datum 8.05 ft lower.

REMARKS.--No estimated daily discharges. Records good. Subsequent to Apr. 24, 1976, records of daily discharge less than about 300 ft³/s does not include approximately 3 ft³/s which is diverted by city of Franklin for municipal supply. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--18 years, 199 ft³/s, 25.57 in/yr, unadjusted

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,300 ft³/s Mar. 12, 1975, gage height, 23.20 ft, site and datum then in use; no flow part or all of each day Sept. 17-23, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 17	2330	*3,230	*6.25	No other peak greater than base discharge.			

Minimum daily discharge, 0.19 ft³/s, Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	90	211	27	21	75	79	14	177	23	2.9	.70
2	27	63	212	26	22	67	71	12	262	19	2.2	.53
3	21	84	159	26	225	67	66	11	132	19	2.3	.49
4	13	126	131	25	229	56	63	10	120	17	2.7	1.6
5	8.9	87	111	24	170	52	57	10	128	15	1.6	3.5
6	7.0	61	92	23	349	54	55	9.3	155	14	2.7	3.1
7	6.0	45	75	22	651	49	44	8.5	734	11	4.7	1.9
8	5.3	37	67	21	383	41	46	10	1120	11	4.7	1.4
9	5.3	35	60	20	270	44	45	10	642	12	6.4	.58
10	4.7	32	54	21	214	47	42	8.5	493	15	4.8	.55
11	7.3	31	58	21	181	40	41	8.1	347	58	9.8	.77
12	8.4	35	83	21	144	61	39	8.0	280	29	4.2	1.4
13	6.5	34	90	20	123	805	34	8.0	206	18	2.9	1.3
14	73	32	95	20	122	488	34	9.1	156	13	2.6	1.3
15	128	33	83	19	118	298	30	15	124	21	2.5	2.0
16	30	37	78	19	159	205	27	17	101	16	3.3	1.4
17	16	52	71	20	1570	151	26	13	76	14	4.8	1.0
18	10	65	61	21	1940	146	26	11	64	10	4.7	.80
19	7.7	54	52	30	813	869	29	37	57	9.2	3.2	2.5
20	12	45	49	37	518	482	35	54	49	7.2	2.3	5.6
21	12	37	46	33	361	299	37	31	43	6.2	2.0	7.6
22	10	35	44	29	258	217	38	20	38	5.7	1.6	5.6
23	17	31	44	26	204	181	32	170	38	5.1	1.3	3.9
24	22	26	44	24	167	148	28	144	40	6.0	1.3	2.6
25	25	26	41	23	138	128	26	121	32	4.1	1.2	1.7
26	21	29	35	23	123	106	25	287	28	4.3	1.3	1.1
27	16	212	33	21	115	98	22	424	26	4.3	1.3	1.3
28	12	460	31	20	93	83	19	475	23	4.9	.87	3.7
29	11	383	30	19	---	84	18	543	22	4.3	.25	5.1
30	50	248	28	20	---	102	16	295	23	4.0	.19	3.5
31	101	---	28	20	---	89	---	196	---	2.5	.30	---
TOTAL	722.1	2565	2296	721	9681	5632	1150	2989.5	5736	402.8	86.91	68.52
MEAN	23.3	85.5	74.1	23.3	346	182	38.3	96.4	191	13.0	2.80	2.28
MAX	128	460	212	37	1940	869	79	543	1120	58	9.8	7.6
MIN	4.7	26	28	19	21	40	16	8.0	22	2.5	.19	.49
CFSM	.21	.78	.67	.21	3.15	1.65	.35	.88	1.74	.12	.03	.02
IN	.24	.87	.78	.24	3.27	1.90	.39	1.01	1.94	.14	.03	.02

CAL YR 1985	TOTAL	30847.79	MEAN	84.5	MAX	1270	MIN	.00	CFSM .77	IN	10.43
WTR YR 1986	TOTAL	32050.83	MEAN	87.8	MAX	1940	MIN	.19	CFSM .80	IN	10.84

03314500 BARREN RIVER AT BOWLING GREEN, KY

LOCATION.--Lat 37°00'04", long 86°25'51", Warren County, Hydrologic Unit 05110002, near left bank on downstream side of College Street bridge, 600 ft downstream from bridge on U.S. Highways 31W and 68 at Bowling Green, 800 ft upstream from Louisville and Nashville Railroad bridge, 6.0 mi downstream from Drakes Creek, 8.9 mi upstream from Jennings Creek, and at mile 37.6.

DRAINAGE AREA.--1,849 mi^2, of which about 490 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1938 to current year. Gage-height records collected in vicinity since 1901 are published in reports of National Weather Service (prior to 1940 records are for site about 7 mi downstream and are fragmentary prior to July 1924).

REVISED RECORDS.--WSP 1385: 1943, 1945, 1946(M). WRD KY-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 409.83 ft above National Geodetic Vertical Datum of 1929. Prior to June 21, 1944, nonrecording gage at same site and datum. Auxiliary water-stage recorder at Tennessee Valley Authority steam powerplant, 7.7 mi downstream. Aug. 10, 1939, to Dec. 31, 1942, auxiliary water-stage recorder or nonrecording gage at site 8.0 mi downstream from base gage.

REMARKS.--Estimated daily discharges: Nov. 28-Dec. 11, Dec. 13-24, Feb. 7-11, Feb. 17-26, June 28-July 9, July 12-Aug. 12, and Aug. 16. Records good except for periods of estimated daily discharges which are fair. Flow regulated by Barren River Lake (station 03312900) beginning March 1964. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--48 years, 2,596 ft^3/s, 19.07 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85,000 ft^3/s, Feb. 28, 1962, gage height, 49.55 ft; minimum, 44 ft^3/s, Sept. 19, 20, 1954, gage height, 4.03 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 8, 1913, reached a stage of 52.2 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown Feb. 18, gage height, 20.91 ft; minimum daily, 105 ft^3/s, Aug. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	471	2490	3290	619	367	4310	585	258	1260	456	234	210
2	523	3010	3200	697	370	4200	549	249	1310	566	234	209
3	654	3020	3620	756	398	4120	520	239	1210	496	230	1150
4	726	3260	3560	641	1250	3550	493	229	895	456	227	1860
5	684	3440	3740	562	1480	2530	469	223	820	427	217	1890
6	653	3250	3710	550	1640	2130	447	219	754	408	213	1900
7	630	3070	3900	540	3960	2060	435	216	901	399	213	1910
8	995	2950	3880	529	4320	1370	434	216	4110	390	213	1900
9	1290	2860	3810	520	3960	1170	424	216	3690	337	213	998
10	1290	2810	3750	488	3540	1150	411	208	3930	257	217	1020
11	710	2770	3800	442	3330	1140	390	199	4010	249	220	1880
12	273	2740	3070	441	3310	1180	372	201	4630	312	230	2080
13	209	1750	3200	440	3120	2990	362	196	4390	312	123	2160
14	195	1590	3900	438	3030	4240	354	196	4300	312	114	2200
15	201	2670	4040	434	1840	2760	343	286	4160	308	105	2170
16	526	2700	3950	429	1670	1950	336	383	3990	312	142	2150
17	393	2690	4020	428	4440	1500	327	306	3390	304	173	2140
18	290	2710	4050	431	10200	1300	320	251	1680	304	182	2130
19	251	2730	3990	482	8020	3780	315	240	963	300	155	2360
20	330	2700	4040	512	5600	3980	326	357	830	296	181	2430
21	396	2660	4020	597	5460	2740	361	389	601	296	212	2240
22	372	2960	4000	650	4970	1950	373	339	473	296	219	2150
23	379	3030	3880	628	4590	1530	367	405	429	288	220	2250
24	397	3000	3470	614	4360	1300	344	3680	470	288	218	2250
25	403	2980	2570	546	4310	1110	312	1970	395	285	212	2230
26	425	2980	1760	444	4310	973	298	1440	362	270	210	2380
27	420	3110	1470	394	4420	868	292	3050	322	262	212	2270
28	406	3700	1430	386	4440	793	287	2980	461	258	217	2150
29	387	4520	1140	367	---	717	276	2800	451	258	215	2100
30	477	3860	998	364	---	669	263	2760	451	244	212	2060
31	977	---	742	363	---	626	---	1810	---	238	209	---
TOTAL	16333	88010	100000	15732	102605	64686	11385	26511	55638	10184	6192	56827
MEAN	527	2934	3226	507	3664	2087	380	855	1855	329	200	1894
MAX	1290	4520	4050	756	10200	4310	585	3680	4630	566	234	2430
MIN	195	1590	742	363	367	626	263	196	322	238	105	209

CAL YR 1985 TOTAL 600680 MEAN 1646 MAX 12200 MIN 111
WTR YR 1986 TOTAL 554103 MEAN 1518 MAX 10200 MIN 105

BEST COPY AVAILABLE

03314670 LOST RIVER BLUE HOLE NEAR BOWLING GREEN, KY.

LOCATION.--Lat 36°57'13", long 86°28'21", Warren County, Hydrologic Unit 05110002, in Lost River Blue Hole about 500 ft upstream from Lost River Cave, 2.6 miles southwest of Bowling Green.

DRAINAGE AREA.--47.3 mi^2, approximately.

PERIOD OF RECORD.--May 1985 to September 30, 1986.

GAGE.--Water-stage recorder. Datum of gage is 475.92 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Aug. 29-31, Sept. 1, 3-7, 9-23, 25-30. Records fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quailty data section.

EXTREMES FOR CURRENT PERIOD.--May to September 1985: Maximum discharge during period, 237 ft^3/s, July 3, gage height, 6.84 ft; minimum daily, 11 ft^3/s, Sept. 19-22.

Water year 1986: Maximum discharge, 428 ft^3/s, May 27, gage height, 7.99 ft; minimum daily, 10 ft^3/s,Aug. 29-31, estimated.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	28	18	17	51	13
2							---	27	19	16	31	13
3							---	27	143	15	20	13
4							---	26	72	138	15	12
5							---	25	53	62	18	12
6							---	24	41	53	24	12
7							---	23	54	36	16	12
8							---	22	53	30	14	12
9							---	21	43	26	13	12
10							---	20	33	24	13	12
11							---	20	31	21	12	12
12							---	20	31	18	12	12
13							---	21	31	16	12	12
14							---	20	29	15	12	12
15							---	19	27	14	12	12
16							--	19	26	14	13	12
17							---	19	26	14	15	12
18							25	18	25	13	13	12
19							24	18	24	13	13	11
20							23	18	22	13	13	11
21							22	18	21	13	13	11
22							21	20	20	13	13	11
23							21	26	19	13	12	13
24							21	21	18	13	12	17
25							20	19	17	12	20	12
26							19	18	26	30	16	35
27							53	20	25	29	13	19
28							46	50	23	16	12	13
29							31	29	20	13	12	13
30							29	24	19	13	13	21
31							---	21	---	13	18	---
TOTAL							---	701	1009	746	496	406
MEAN							---	22.6	33.6	24.1	16.0	13.5
MAX							---	50	143	138	51	35
MIN							---	18	17	12	12	11

GREEN RIVER BASIN--Continued

03314670 LOST RIVER BLUE HOLE NEAR BOWLING GREEN, KY

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	31	60	24	13	64	57	20	86	30	15	11
2	32	30	60	24	12	61	55	19	79	30	15	11
3	27	40	56	23	15	59	53	18	73	30	15	11
4	23	54	54	23	17	57	52	17	69	29	14	11
5	19	50	51	23	17	55	50	17	65	28	14	11
6	16	42	48	23	80	54	48	16	63	27	14	11
7	14	35	42	19	119	52	47	15	78	27	14	11
8	13	31	37	18	85	50	46	16	81	26	14	11
9	13	30	34	18	72	49	41	15	94	25	14	11
10	13	29	32	18	61	48	38	14	127	25	14	11
11	13	27	45	17	56	45	36	14	104	24	15	31
12	13	26	55	17	52	50	35	13	97	23	14	22
13	13	25	54	16	48	112	32	13	87	22	14	15
14	13	24	53	16	47	88	32	13	79	22	14	13
15	15	22	52	15	44	76	31	65	72	22	14	12
16	15	23	50	14	47	75	30	47	67	20	29	11
17	15	23	48	14	150	65	30	33	63	19	16	11
18	15	22	44	14	210	69	30	30	60	18	13	50
19	16	21	38	21	176	212	29	30	57	18	12	37
20	19	20	36	19	154	162	29	30	55	17	12	28
21	22	19	33	17	133	135	30	28	53	17	12	21
22	16	18	32	16	110	115	29	27	51	16	11	16
23	19	17	31	15	96	102	27	125	49	16	11	14
24	24	16	31	15	87	92	26	166	45	15	11	12
25	21	16	30	15	79	84	25	129	40	15	11	12
26	18	16	30	14	77	78	24	124	36	15	11	12
27	17	65	30	14	77	71	23	132	34	15	11	14
28	16	63	28	13	77	67	23	113	33	15	11	13
29	16	67	27	13	---	65	23	106	32	15	10	12
30	18	62	26	13	---	61	21	102	31	15	10	12
31	29	---	26	13	---	59	---	94	---	15	10	---
TOTAL	584	964	1273	534	2211	2432	1052	1601	1960	651	415	478
MEAN	18.8	32.1	41.1	17.2	79.0	78.5	35.1	51.6	65.3	21.0	13.4	15.9
MAX	51	67	60	24	210	212	57	166	127	30	29	50
MIN	13	16	26	13	12	45	21	13	31	15	10	11

WTR YR 1986 TOTAL 14155 MEAN 38.8 MAX 212 MIN 10

03315500 GREEN RIVER AT LOCK 4, AT WOODBURY, KY

LOCATION.--Lat 37°10'56", long 86°37'48", Butler County, Hydrologic Unit 05110003, on left bank 0.1 mi upstream from destroyed lock 4, at Woodbury, 0.3 mi downstream from Barren River, and at mile 149.2.

DRAINAGE AREA.--5,404 mi², of which about 1,360 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--December 1936 to February 1937 (in WSP 838), October 1937 to current year. Gage-height records collected at same site since 1917 are published in reports of National Weather Service.

REVISED RECORDS.--WSP 1385: 1944-45. WRD KY-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 389.17 above ft National Geodetic Vertical Datum of 1929. Prior to September 1940, nonrecording gage at site 0.1 mi downstream at lock 4, at same datum. Auxiliary water-stage recorder 7.8 mi downstream; prior to Oct. 1, 1955, nonrecording gages 6.0 mi and 7.8 mi downstream.

REMARKS.--Estimated daily discharge: Oct. 1-9, Mar. 24 to Apr. 8, Apr. 19 to June 24, Aug. 5-6: Records fair except those for estimated daily discharge which are poor. Flow regulated by Green River Lake (station 03305990) beginning February 1969, Nolin Lake (station 03310900) beginning March 1963, and Barren River Lake (station 03312900) beginning March 1964. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--49 years (1937-86), 8,406 ft³/s, 21.12 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 205,000 ft³/s, Jan. 25, 1937, gage height, 43.1 ft; minimum daily, 200 ft³/s, Sept. 14-16, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 11, 1913, reached a stage of 38.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36,000 ft³/s, Feb. 19, maximum gage height, 25.68 ft, Feb. 19; minimum daily, 681 ft³/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1700	4080	13600	2480	1330	11300	3200	960	5500	1580	1080	966
2	1900	8970	11700	2400	1460	10900	3000	930	4700	1840	1160	953
3	2050	10900	13900	2400	2290	10400	2800	900	4100	1900	1100	1710
4	2200	12000	14000	2390	4610	9920	2600	870	3500	1690	1030	2900
5	2220	12000	13000	2280	7590	8810	2400	840	3000	1680	880	3350
6	2200	12200	12700	2210	11000	7090	2300	820	4300	1610	730	3590
7	2100	12100	13300	2160	20000	5860	2200	800	6400	1520	681	3710
8	2000	10900	13500	2080	20700	5170	1950	780	9600	1450	731	3690
9	2100	7940	13500	2090	17400	4170	1890	760	11500	1370	786	3510
10	2410	6630	9860	2130	14200	3750	1820	750	14200	1400	827	2430
11	2330	5360	11100	1930	15800	3610	1720	740	15500	1510	883	2920
12	1530	4590	15200	1570	15100	4200	1660	730	15000	1360	932	4340
13	943	4210	13900	1490	13400	12200	1600	720	11800	1500	927	5490
14	762	2870	14300	1490	12500	22100	1560	3500	9600	1510	994	5800
15	986	3580	14800	1440	10900	22800	1500	12000	7600	1440	932	5220
16	3050	5320	13900	1480	7230	15200	1480	9600	6200	1460	956	4800
17	3820	7890	13000	1550	13400	11600	1550	7200	5400	1450	1380	4360
18	2650	7990	12500	1400	28700	9760	1780	5400	4700	1320	1420	4150
19	1370	7340	11900	1760	35100	17700	1700	3500	3900	1180	1200	5310
20	1070	6900	11400	2040	29100	22900	1600	2500	3500	1100	1130	8430
21	1250	6480	10800	1970	21500	19000	1500	2200	3000	1050	1130	6480
22	1340	6270	9420	2130	21600	13100	1420	1800	2400	997	1090	5370
23	1600	6330	8220	2230	20300	10100	1340	1500	2250	935	1050	4790
24	3510	6270	7280	2160	19000	8000	1280	2700	2100	999	1030	4760
25	3020	6300	6190	2090	17300	7000	1220	4200	1930	1410	999	4880
26	2670	8940	5040	2070	12500	6000	1160	7000	1790	1080	991	4770
27	2380	10800	4140	2050	11600	5300	1120	11000	1700	977	1010	4690
28	1890	13600	3690	1640	11500	4700	1080	9500	1630	1180	1010	4410
29	1610	19400	3390	1400	---	4300	1020	8600	1640	1300	995	4250
30	1590	18200	2980	1340	---	3800	980	7300	1610	1190	990	4140
31	2430	---	2760	1350	---	3500	---	6400	---	1060	983	---
TOTAL	62691	256360	324970	59200	417110	304240	52430	116500	170050	42048	31037	126169
MEAN	2022	8545	10480	1910	14900	9814	1748	3758	5668	1356	1001	4206
MAX	3820	19400	15200	2480	35100	22900	3200	12000	15500	1900	1420	8430
MIN	762	2870	2760	1340	1330	3500	980	720	1610	935	681	953

CAL YR 1985	TOTAL	2311728	MEAN	6334	MAX	33900	MIN	632
WTR YR 1986	TOTAL	1962805	MEAN	5378	MAX	35100	MIN	681

BEST COPY AVAILABLE

03318500 ROUGH RIVER AT FALLS OF ROUGH, KY

LOCATION.--Lat 37°35'20", long 86°33'05", Grayson County, Hydrologic Unit 05110004, on left bank 150 ft downstream from bridge on State Highway 110 at Falls of Rough, 3.2 mi downstream from Rock Lick Creek, 6.4 mi downstream from Rough River Dam, and at mile 82.9.

DRAINAGE AREA.--504 mi², of which about 110 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1939 to current year (low-water periods only prior to October 1948, published as "near Falls of Rough").Prior to January 1940 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1555: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 420.94 ft above National Geodetic Vertical Datum of 1929. July 12, 1940 to June 27, 1941, nonrecording gage at datum 1.79 ft lower and June 27, 1941 to Oct. 21, 1948, water-stage recorder at datum 2.79 ft lower, at site 1,000 ft downstream.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Rough River Lake (station 03318005) beginning October 1959. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--38 years, 773 ft³/s, 20.83 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft³/s, Jan. 14, 1950, gage height, 28.87 ft; minimum daily, 6.0 ft³/s, Aug. 13, 1944, Dec. 22, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Stages for other floods at present datum, from floodmarks, are as follows: 28.96 ft, 1913; 28.93 ft, 1915; 29.31 ft, March 1935; 34.06 ft, Jan. 25, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,100 ft³/s, Feb. 2, gage height, 16.92 ft; minimum daily, 22 ft³/s, May 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	1220	276	639	47	2540	92	26	45	88	86	58
2	160	1370	777	262	1770	2510	91	26	42	280	65	57
3	159	1320	1360	87	1560	2340	89	24	38	74	63	57
4	159	1360	1330	88	1290	1620	87	25	40	64	61	57
5	159	1500	1320	89	1070	940	85	24	63	62	60	57
6	159	1480	1300	87	1100	371	85	24	424	61	60	57
7	159	1460	1290	87	1200	219	86	24	624	61	60	57
8	158	1450	1280	85	323	221	86	27	561	60	61	56
9	157	1320	1270	85	223	229	83	26	217	60	61	57
10	145	1200	1260	85	459	237	79	24	299	60	63	57
11	162	1180	735	85	1140	243	78	22	198	60	63	60
12	163	1840	786	86	1640	951	78	25	482	61	62	63
13	168	2030	1340	71	2300	1280	78	41	544	61	59	59
14	226	871	1320	39	2310	550	78	807	508	60	59	59
15	910	312	1280	37	1760	1060	77	1070	497	65	59	58
16	1740	1590	1750	37	1390	1810	68	138	416	62	60	58
17	1810	877	2300	39	1690	2010	54	64	257	61	60	58
18	1630	635	2280	44	1040	2010	54	49	254	60	59	59
19	1150	1030	2310	291	1000	2120	55	43	210	60	58	66
20	1040	631	2420	117	2020	1510	63	39	116	60	57	65
21	1140	1290	2390	83	2500	1240	90	36	107	60	57	68
22	1280	1270	2370	73	2700	693	81	33	106	59	57	63
23	1300	1250	2390	63	2690	354	55	31	103	59	57	208
24	1440	1240	2490	59	2670	194	33	31	91	59	58	223
25	1550	1230	2460	59	2640	100	31	37	81	56	57	226
26	1410	1490	2420	58	2620	1020	30	831	74	61	58	224
27	1180	1660	2380	53	2600	1950	30	828	62	62	58	262
28	1050	1040	2340	47	2570	1140	28	143	61	69	57	229
29	1090	343	2300	49	---	99	27	86	61	67	57	383
30	1100	218	2050	47	---	95	26	64	60	64	57	355
31	1120	---	1320	46	---	93	---	52	---	88	57	---
TOTAL	24234	35707	52894	3077	46322	31749	1977	4720	6641	2184	1866	3416
MEAN	782	1190	1706	99.3	1654	1024	65.9	152	221	70.5	60.2	114
MAX	1810	2030	2490	639	2700	2540	92	1070	624	280	86	383
MIN	145	218	276	37	47	93	26	22	38	56	57	56
CFSM	1.97	3.00	4.30	.25	4.17	2.58	.17	.38	.56	.18	.15	.29
IN	2.27	3.35	4.96	.29	4.34	2.97	.19	.44	.62	.20	.17	.32

CAL YR 1985 TOTAL 297255 MEAN 814 MAX 3700 MIN 52 CFSM 2.05 IN 27.85
WTR YR 1986 TOTAL 214787 MEAN 588 MAX 2700 MIN 22 CFSM 1.48 IN 20.13

03318800 CANEY CREEK NEAR HORSE BRANCH, KY

LOCATION.--Lat 37°27'50", long 86°39'20", Ohio County, Hydrologic Unit 05110004, on right bank 9 ft downstream from bridge on U.S. Highway 62, 0.7 mi upstream from Horse Branch, 1.5 mi northeast of village of Horse Branch, and at mile 12.1.

DRAINAGE AREA.--124 mi², includes that of Horse Branch at U.S. Highway 62.

PERIOD OF RECORD.--October 1956 to current year.

REVISED RECORDS.--WRD KY 82-1: 1981.

GAGE.--Water-stage recorder. Datum of gage is 416.30 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, at datum 1.00 ft higher. Prior to Nov. 20, 1956, nonrecording gage at same site and higher datum.

REMARKS.--Estimated daily discharges: Oct. 3-8, Jan. 2, 3, 11-17, Jan. 29 to Feb. 1, and Feb. 28 to Mar. 1. Records good except those for estimated daily discharges, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in miscellaneous water-quality data section.

AVERAGE DISCHARGE.--30 years, 188 ft³/s, 20.59 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s, May 7, 1984, gage height, 13.96 ft; maximum gage height, 15.43 ft, Nov. 18, 1957, present datum, backwater from Rough River or debris; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 26	2200	2,590	7.55	Mar. 13	0200	1,990	6.85
Feb. 5	0100	3,000	8.00	May 14	2400	*4,680	*9.56
Feb. 17	2300	1,560	6.27				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	150	257	24	19	66	30	5.7	27	.85	3.4	.00
2	1.9	187	242	23	67	77	28	5.6	21	280	3.5	.00
3	.75	168	155	22	650	60	25	3.4	14	70	1.6	.00
4	.35	250	116	22	1200	45	21	2.4	24	28	1.2	.00
5	.10	159	100	20	1940	40	20	1.7	46	11	1.0	.00
6	.04	103	86	19	1330	47	19	1.8	80	4.4	.74	.00
7	.01	72	71	17	1880	46	17	1.8	114	2.3	.52	.00
8	.00	44	64	13	772	37	16	2.3	116	1.7	.75	.00
9	.00	30	58	11	371	33	15	2.1	90	1.5	.52	.00
10	.00	24	52	10	243	32	13	1.7	103	1.2	.79	.00
11	.00	21	97	9.3	200	34	8.7	1.5	92	1.0	1.2	.00
12	.00	20	270	8.6	154	328	9.0	1.5	163	1.1	1.1	53
13	.15	129	226	8.0	121	1520	8.1	1.7	99	1.3	1.0	39
14	22	285	215	7.6	112	619	7.2	410	61	1.1	1.2	13
15	180	189	141	7.3	110	275	8.1	2530	40	.66	.96	5.4
16	48	1090	113	7.0	162	175	6.9	791	27	.66	1.0	2.3
17	16	790	97	6.7	1210	126	7.0	338	18	.99	.88	1.8
18	10	259	80	18	1160	101	5.0	126	10	1.3	.90	1.6
19	8.3	157	60	64	515	314	4.3	73	6.1	.96	1.3	510
20	9.9	127	55	82	289	255	10	49	2.8	.86	1.3	629
21	90	102	50	63	205	151	17	36	2.0	.69	1.1	139
22	64	85	46	55	153	111	22	25	1.6	.47	.84	81
23	161	69	47	45	118	91	17	26	1.6	.26	.44	43
24	427	59	49	38	101	76	15	27	20	.04	.39	64
25	153	54	41	36	84	64	14	36	6.1	.00	.13	41
26	73	749	32	38	78	57	11	328	1.8	.00	.00	23
27	37	1930	31	33	66	54	9.7	304	1.4	.00	.00	13
28	24	1230	30	26	61	48	9.0	139	1.0	.00	.00	9.2
29	17	622	27	24	---	40	8.1	84	.93	.00	.00	5.3
30	30	293	23	22	---	37	4.8	56	.86	.00	.00	2.7
31	127	---	24	20	---	33	---	39	---	.00	.00	---
TOTAL	1504.00	9447	2955	799.5	13371	4992	405.9	5450.2	1191.19	412.34	27.76	1676.30
MEAN	48.5	315	95.3	25.8	478	161	13.5	176	39.7	13.3	.90	55.9
MAX	427	1930	270	82	1940	1520	30	2530	163	280	3.5	629
MIN	.00	20	23	6.7	19	32	4.3	1.5	.86	.00	.00	.00
CFSM	.39	2.54	.77	.21	3.85	1.30	.11	1.42	.32	.11	.01	.45
IN	.45	2.83	.89	.24	4.01	1.50	.12	1.64	.36	.12	.01	.50

CAL YR 1985 TOTAL 54519.55 MEAN 149 MAX 2410 MIN .00 CFSM 1.20 IN 16.36
WTR YR 1986 TOTAL 42232.19 MEAN 116 MAX 2530 MIN .00 CFSM .94 IN 12.67

GREEN RIVER BASIN

03320000 GREEN RIVER AT LOCK 2, AT CALHOUN, KY

LOCATION.--Lat 37°32'02", long 87°15'50", McLean County, Hydrologic Unit 05110005, on right bank 0.2 mi downstream from bridge on State Highway 81 at Calhoun, 870 ft upstream from lock and dam 2, 0.2 mi upstream from Long Falls Creek, and at mile 63.3.

DRAINAGE AREA.--7,566 mi² revised, of which about 1,540 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--March 1930 to current year. Prior to October 1958, published as "at Livermore."

REVISED RECORDS.--WSP 1385: 1939. WSP 1555: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 353.95 ft above National Geodetic Vertical Datum of 1929. Auxiliary water-stage recorder at Livermore, 8.0 mi upstream at datum 360.11 ft National Geodetic Vertical Datum of 1929. Base gages used were: Livermore gage, Mar. 22, 1930 to Sept. 30, 1940 (nonrecording prior to Sept. 1, 1939), and Oct. 1, 1942 to Sept. 1, 1939), and Oct.1, 1942 to Sept. 30, 1947; water-stage recorder at State Highway 81 bridge, 0.2 mi upstream from present base gage, Oct. 1, 1940 to Sept. 30, 1942, and Oct. 1, 1947 to Sept. 30, 1958, at datum 1.35 ft higher than present base gage. Auxiliary gages were: Lock 2 upper nonrecording gage, Oct. 1, 1932 to Sept. 30, 1939, at datum 1.35 ft higher than present base gage; recorder at State Highway 81, Oct. 1, 1939 to Sept. 30, 1940, and Oct. 1, 1942 to Sept. 30, 1947; and Livermore gage, Oct. 1, 1941 to Sept. 30, 1942 and after Sept. 30, 1947. No auxiliary used prior to Oct. 1, 1932 and Oct. 1, 1940, to Sept. 30, 1941.

REMARKS.--Estimated daily discharges: April 4-6, 14-17, and July 31-August 5. Records fair. Flow regulated by upstream lakes on Green, Barren, Nolin, and Rough River beginning October 1959. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--56 years, 11,190 ft³/s, 20.08 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 208,000 ft³/s, Jan. 27, 1937; maximum gage height, 42.4 ft, Jan. 30, 1937, at site 0.2 mi upstream at datum 1.35 ft higher; minimum discharge, 280 ft³/s, Oct. 5-9, 23-27, 1930, Feb. 2-4, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1937 is maximum known since 1898.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,800 ft³/s, Feb. 21, gage height, 20.01 ft, Feb. 12; minimum daily discharge, 749 ft³/s, August 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1800	7340	23200	4990	1500	15000	3600	1440	7520	1690	1080	1030
2	2070	12700	20200	4240	2290	14600	3340	1390	6420	2150	1000	1080
3	2270	15900	17800	3510	6460	14100	3140	1370	5240	2550	980	1110
4	2320	16600	17000	3080	12600	13600	3000	1300	4480	2570	930	1650
5	2390	16700	16600	2840	13400	12900	2850	1240	4250	2160	860	2710
6	2390	16400	15800	2570	14000	11000	2700	1210	5630	1810	801	3350
7	2280	16000	16200	2440	19000	8610	2560	1200	9370	1630	768	3630
8	2150	14900	16500	2370	25300	7020	2410	1210	9740	1480	814	3800
9	2120	12600	16500	2290	25400	5910	2420	1170	12600	1350	749	3790
10	2290	9820	15300	2240	24000	5000	2390	1090	16000	1320	803	3460
11	2500	8190	12300	2290	21700	4650	2320	1110	16500	1420	827	2830
12	2340	8180	15700	2020	22100	7760	2220	1080	18400	1440	848	3490
13	1750	9680	17600	1730	23600	17400	2100	1070	17500	1410	874	4610
14	1430	9200	17500	1590	24200	22200	2090	1090	15800	1480	901	5680
15	1830	7750	17500	1570	25200	26200	2070	9340	13900	2040	937	5750
16	2370	11000	17500	1480	17900	24900	2060	16400	11900	1920	1030	5200
17	3840	15400	16700	1500	11300	19500	2040	13400	10300	1620	1120	4830
18	5020	15000	15800	1590	18200	16100	2030	9580	8980	1440	1250	4500
19	4300	13600	15200	2680	27800	17600	1940	5740	7130	1320	1320	4770
20	3690	12500	14600	3400	32200	23700	1820	3860	5110	1150	1270	7610
21	3110	11000	14100	3570	33400	26100	1950	3190	3750	1120	1220	9470
22	2700	9460	13400	3200	30700	21900	2080	2910	3010	1090	1200	7680
23	2970	8680	12200	3060	26800	17000	2150	2590	2690	1050	1120	6090
24	5320	8430	10900	2920	24000	13900	2140	3340	2640	999	1110	5780
25	6390	8270	9880	2760	21900	10200	2020	7160	2410	1000	1080	5600
26	5500	9840	8800	2550	19400	8230	1900	8140	2170	1050	1060	5440
27	4850	18100	7650	2550	16900	7000	1770	11600	1980	1000	1010	5170
28	4150	20400	6880	2420	16000	6630	1600	14200	1790	947	1020	4970
29	3400	22200	6280	1900	---	6520	1570	13600	1670	972	1020	4730
30	3110	23900	5810	1710	---	5510	1510	11200	1610	1020	991	4560
31	4370	---	5320	1520	---	4300	---	9380	---	1100	1000	---
TOTAL	97020	389740	436720	78580	557250	415040	67790	162600	230490	45298	30993	134370
MEAN	3130	12990	14090	2535	19900	13390	2260	5245	7683	1461	1000	4479
MAX	6390	23900	23200	4990	33400	26200	3600	16400	18400	2570	1320	9470
MIN	1430	7340	5320	1480	1500	4300	1510	1070	1610	947	749	1030

CAL YR 1985	TOTAL	3257251	MEAN	8924	MAX	41100	MIN 542
WTR YR 1986	TOTAL	2645891	MEAN	7249	MAX	33400	MIN 749

03320500 POND RIVER NEAR APEX, KY

LOCATION.--Lat 37°07'20", long 87°19'10", Muhlenberg County, Hydrologic Unit 05110006, on downstream side of right pier of bridge on State Highway 189, 1.1 mi downstream from Coal Creek, 2.1 mi northeast of Apex, 5.7 mi upstream from West Fork, and at mile 62.8.

DRAINAGE AREA.--194 mi².

PERIOD OF RECORD.--August 1940 to current year. October 1953 to September 1971, published as "East Fork Pond River near Apex."

REVISED RECORDS.--WSP 1083: 1942-46. WSP 1555: 1945-46(P), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 384.53 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 21, 1942, nonrecording gage at same site. Prior to Oct. 1, 1974, at datum 6.11 ft higher.

REMARKS.--Estimated daily discharges: Nov. 20 to Dec. 19, Jan. 10-18, Jan. 26 to Feb. 2, Aug. 4-10 and Aug. 21 to Sept. 30. Records poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--46 years, 274 ft³/s, 19.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,700 ft³/s, May 7, 1984, gage height, 22.83 ft; maximum gage height, 26.81 ft, present datum, Nov. 19, 1957; no flow at times during most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of 19.6 ft, datum then in use, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 1	2100	*5,460	*16.89	Feb. 6	2000	4,500	16.35
Nov. 16	1600	2,780	15.03	Feb. 18	0200	3,440	15.61
Nov. 28	Unknown	Unknown	Unknown				

Minimum daily discharge, 0.21 ft³/s, Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	2810	550	55	40	105	65	11	116	14	4.1	.45
2	49	3970	450	53	39	95	61	11	83	27	3.3	.36
3	43	2570	390	52	242	91	57	11	65	39	1.4	.35
4	35	1870	320	52	577	84	54	8.7	58	34	1.0	2.0
5	31	1030	290	52	974	79	59	6.2	72	26	.75	10
6	27	562	250	51	2100	78	48	5.4	128	20	1.0	6.0
7	26	377	220	49	3410	74	46	4.7	151	16	1.4	3.5
8	28	232	190	39	2120	68	45	4.0	138	13	2.0	1.8
9	28	137	160	37	1300	63	44	3.5	124	9.4	2.8	1.0
10	28	106	150	35	689	61	40	3.3	96	8.3	4.0	.60
11	22	92	250	34	486	61	56	3.4	83	5.7	4.4	2.5
12	21	93	900	33	380	572	43	6.6	136	4.7	5.4	6.0
13	28	102	700	32	277	2460	36	7.8	98	4.1	5.4	25
14	31	95	550	31	222	1780	33	7.9	61	3.5	5.3	21
15	34	84	400	30	184	1140	31	170	49	25	3.8	11
16	35	1020	320	29	272	604	29	203	40	33	3.5	8.0
17	35	230	250	28	1820	403	28	173	35	25	3.5	5.0
18	33	237	190	27	2760	285	24	100	30	15	3.5	3.6
19	36	205	140	131	1720	470	22	62	25	9.0	3.5	2.6
20	66	155	100	171	1020	475	25	45	21	5.8	3.2	28
21	244	120	92	125	613	336	66	33	18	5.8	1.9	24
22	163	90	88	99	455	244	59	32	17	11	1.6	10
23	824	70	87	80	349	194	45	156	16	11	1.5	3.5
24	1440	150	86	70	261	168	36	890	16	8.0	1.5	8.0
25	732	300	76	66	196	131	30	1030	16	5.0	1.4	20
26	458	600	72	54	153	108	26	787	15	3.7	1.3	10
27	213	1000	69	50	135	96	21	933	13	2.9	.90	5.0
28	107	2000	65	47	120	88	19	588	12	2.2	.55	3.0
29	78	1400	62	45	---	80	15	390	14	2.9	.35	2.3
30	335	800	57	43	---	81	12	267	14	3.0	.21	1.8
31	1170	---	56	41	---	73	---	186	---	3.7	.30	---
TOTAL	6444	22507	7580	1741	22914	10647	1175	6139.5	1760	396.7	74.76	226.36
MEAN	208	750	245	56.2	818	343	39.2	198	58.7	12.8	2.41	7.55
MAX	1440	3970	900	171	3410	2460	66	1030	151	39	5.4	28
MIN	21	70	56	27	39	61	12	3.3	12	2.2	.21	.35
CFSM	1.07	3.87	1.26	.29	4.22	1.77	.20	1.02	.30	.07	.01	.04
IN	1.24	4.32	1.45	.33	4.39	2.04	.23	1.18	.34	.08	.01	.04

CAL YR 1985 TOTAL 110099 MEAN 302 MAX 3970 MIN 16 CFSM 1.56 IN 21.11
WTR YR 1986 TOTAL 81605.32 MEAN 224 MAX 3970 MIN .21 CFSM 1.15 IN 15.65

03321230 GREEN RIVER NEAR BEECH GROVE, KY
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°35'21", long 87°24'16", Webster County, Hydrologic Unit 05110005, at old ferry landing at Wrightsburg, 1.8 mi south of Beech Grove, 2.9 mi upstream from Deer Creek, 6.0 mi downstream from Pond River, and at mile 49.1.

DRAINAGE AREA.--8,454 mi², of which 1,570 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--Water years 1975 to 1986 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981.
WATER TEMPERATURES: October 1974 to September 1981.

REMARKS.--Flow regulated by lakes on the Green, Barren, Nolin and Rough Rivers. Records of daily discharge are published for gaging stations at Calhoun (station 03320000) and Pond River near Apex (station 03320500).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	BAROMETRIC PRESSURE (MM OF HG)	TURBIDITY (NTU)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 1985											
21...	1035	3460	20.0	343	7.40	6.7	74	759	55	1800	>5000
DEC											
18...	1030	15800	6.5	286	8.00	8.0	65	760	2.6	340	790
MAR 1986											
06...	1000	11200	8.0	293	7.30	11.2	95	756	36	48	>1000
APR											
16...	0945	1800	18.0	406	7.70	7.8	83	757	15	K4	K13
JUN											
18...	1000	9200	23.0	308	8.00	8.1	95	760	35	130	68
AUG											
14...	1045	760	28.5	567	7.90	7.4	97	756	5.6	K7	K5

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICARBONATE IT-FLD (MG/L AS HCO3)	ALKALINITY, CARBONATE IT-FLD (MG/L - CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 1985											
21...	140	72	39	10	11	4.9	69	82	67	60	14
DEC											
18...	130	40	39	8.2	6.9	2.5	91	--	--	36	11
MAR 1986											
06...	130	49	40	8.5	6.3	2.1	86	--	--	46	8.3
APR											
16...	220	110	60	17	14	2.0	107	130	107	120	11
JUN											
18...	150	44	45	9.3	6.7	2.5	106	131	107	50	7.0
AUG											
14...	240	130	63	21	20	3.4	114	140	115	150	16

03321230 GREEN RIVER NEAR BEECH GROVE, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)
OCT 1985											
21...	0.1	4.7	208	0.76	0.01	0.9	0.10	0.04	30	1	48
DEC											
18...	<0.1	5.6	162	0.91	0.08	0.6	0.04	0.02	40	<1	38
MAR 1986											
06...	<0.1	5.6	172	1.50	0.11	0.8	0.06	0.03	--	--	--
APR											
16...	0.1	4.8	318	1.30	0.07	0.6	0.04	0.03	180	1	52
JUN											
18...	0.1	6.7	205	1.60	0.05	0.5	0.08	0.03	--	--	--
AUG											
14...	0.3	4.4	365	0.56	0.03	0.6	0.05	0.02	--	--	--

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
OCT 1985										
21...	0.8	<1	3	<3	9	150	<1	6	20	0.5
DEC										
18...	<0.5	<1	2	<3	3	39	1	5	45	<0.1
MAR 1986										
06...	--	--	--	--	--	--	--	--	--	--
APR										
16...	<0.5	1	<10	<3	4	270	2	8	240	<0.1
JUN										
18...	--	--	--	--	--	--	--	--	--	--
AUG										
14...	--	--	--	--	--	--	--	--	--	--

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1985										
21...	<10	2	<1	<1	170	<6	<3	71	663	100
DEC										
18...	<10	2	<1	<1	140	<6	8	73	3110	100
MAR 1986										
06...	--	--	--	--	--	--	--	104	3140	100
APR										
16...	<10	4	<1	<1	250	<6	16	21	102	100
JUN										
18...	--	--	--	--	--	--	--	55	1370	100
AUG										
14...	--	--	--	--	--	--	--	23	47	100

OHIO RIVER MAIN STEM

03322000 OHIO RIVER AT EVANSVILLE, IN

LOCATION.--Lat 37°58'20", long 87°34'35", Vanderburgh County, Hydrologic Unit 05140202, on right bank at Riverside Drive and Court Street, at Evansville, 0.6 mi upstream from Pigeon Creek, and at mile 792.3.

DRAINAGE AREA.--107,000 mi², approximately.

PERIOD OF RECORD.--December 1936 to current year (fragmentary prior to October 1940 and after September 1974). Gage-height records collected at same site since 1873 are contained in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 328.64 ft above National Geodetic Vertical Datum of 1929 or 329.18 ft, Ohio River datum. Prior to Feb. 20, 1963, and after Sept. 23, 1963, water-stage recorder at same site and datum. Feb. 20, 1963 to Sept. 23, 1963, nonrecording gage 0.6 mi downstream at same datum. Prior to February 1975 auxiliary nonrecording gage at lock and dam 48, 17.3 mi downstream. From February 1975 to May 23, 1985, auxiliary nonrecording gage at Newburgh lock and dam, 16.3 mi upstream. Since May 23, 1985 water-stage recorder at same site.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--34 years (1940-74), 133,300 ft³/s, 16.92 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410,000 ft³/s, Jan. 29, 1937; maximum gage height, 53.75 ft, Jan. 31, 1937; minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 554,000 ft³/s, Dec. 4; maximum gage height, 41.20 ft, Dec. 5; minimum discharge not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	457000	---	121000	266000	---	---	---			
2		---	504000	---	132000	238000	---	---	---			
3		---	536000	---	142000	211000	---	---	---			
4		---	554000	---	157000	184000	---	---	---			
5		---	552000	---	208000	159000	---	---	---			
6		128000	523000	---	279000	137000	---	---	---			
7		185000	463000	---	367000	126000	---	---	---			
8		241000	374000	---	421000	124000	---	---	---			
9		294000	297000	---	463000	126000	---	---	115000			
10		330000	253000	---	499000	121000	---	---	118000			
11		352000	222000	---	513000	119000	---	---	110000			
12		324000	206000	---	513000	123000	---	---	102000			
13		287000	219000	---	488000	182000	---	---	113000			
14		279000	235000	---	407000	273000	---	---	117000			
15		267000	259000	---	327000	347000	---	---	125000			
16		273000	296000	---	257000	367000	---	114000	130000			
17		317000	331000	---	226000	370000	---	---	125000			
18		353000	345000	---	213000	363000	---	---	---			
19		353000	325000	---	240000	379000	---	---	---			
20		356000	272000	---	288000	403000	---	---	---			
21		364000	220000	---	351000	410000	100000	---	---			
22		350000	173000	118000	393000	385000	111000	---	---			
23		302000	144000	144000	410000	335000	113000	---	---			
24		242000	122000	170000	416000	280000	108000	---	---			
25		199000	108000	194000	401000	228000	111000	103000	---			
26		184000	101000	208000	375000	181000	116000	---	---			
27		209000	---	214000	341000	146000	118000	---	---			
28		258000	---	206000	302000	125000	107000	---	---			
29		329000	---	184000	---	115000	---	---	---			
30		400000	---	164000	---	---	---	---	---			
31		---	---	136000	---	---	---	---	---			
TOTAL		---	---	---	9250000	---	---	---	---			
MEAN		---	---	---	330400	---	---	---	---			
MAX		---	---	---	513000	---	---	---	---			
MIN		---	---	---	121000	---	---	---	---			

HIGHLAND CREEK BASIN

03322360 BEAVERDAM CREEK NEAR CORYDON, KY

LOCATION.--Lat 37°42'14", long 87°41'52", Henderson County, Hydrologic Unit 05140202, on left upstream wingwall of bridge on State Highway 145, 2.8 mi southeast of Corydon, and at mile 3.3.

DRAINAGE AREA.--14.3 mi².

PERIOD OF RECORD.--July 1972 to September 1982, October 1983 to current year.

GAGE.--Water-stage recorder. Elevation is 360 ft from topographic map.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 15, Jan. 27 to Feb. 19, and Mar. 18 to Apr. 1. Records fair except those for estimated daily discharges, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--13 years, 15.7 ft³/s, 14.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,360 ft³/s, Apr. 29, 1983, gage height, 16.4 ft, from floodmark; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 20	0700	1,030	11.49	Mar. 12	0645	1,160	11.89
Nov. 1	1800	1,860	13.68	June 9	1300	1,980	13.94
Nov. 13	0700	*2,440	*14.87	Jul. 14	2130	2,180	14.37
Nov. 16	0630	1,360	12.45				

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.44	607	54	2.4	2.5	6.3	2.5	2.1	.97	1.7	.00	.13
2	.16	40	15	2.9	110	7.1	2.6	1.1	.95	1.3	.00	2.2
3	.10	11	10	3.0	80	6.1	2.5	1.1	.75	.00	.00	.35
4	.04	6.6	11	3.2	90	5.7	2.2	.85	.66	.00	.00	.28
5	.00	4.9	11	2.5	20	5.9	1.9	.80	.73	.00	.00	.28
6	.00	4.0	8.4	2.4	10	7.7	1.7	.75	1.3	.00	.00	.20
7	.00	3.7	8.2	2.0	70	5.5	1.8	.82	.84	.00	23	.14
8	.00	2.9	8.5	1.1	30	4.8	1.9	.74	1.2	.00	.30	.12
9	.00	2.7	7.4	.78	24	5.5	1.2	.75	268	.00	.00	.09
10	.00	2.8	8.0	1.5	20	5.4	1.3	.75	4.3	.00	11	.04
11	.01	85	86	1.8	15	4.6	1.3	.82	3.3	.00	.01	42
12	.00	87	22	2.2	11	194	1.2	1.0	1.2	.00	.00	5.3
13	.00	493	14	2.1	9.0	40	1.1	.84	.16	.01	.00	.95
14	.25	27	9.4	1.8	8.0	17	1.1	2.1	.00	248	.00	.56
15	.86	31	9.3	1.6	7.0	12	1.3	3.3	.00	59	.00	.52
16	.29	222	12	1.7	10	9.2	.99	2.4	.00	.32	19	.41
17	.20	23	11	2.5	15	8.2	1.0	40	.00	.01	1.2	.41
18	.20	16	7.0	37	20	7.8	.91	15	.00	.00	.16	15
19	.15	13	5.4	38	18	7.5	4.2	3.0	.00	.00	.18	1.5
20	138	30	5.6	11	12	7.1	19	1.9	.00	.00	.25	.75
21	2.9	[illegible]	4.7	8.6	9.9	6.8	11	1.2	.00	.00	.34	.50
22	1.2	[illegible]	6.1	5.9	8.8	6.5	4.1	.92	.00	.00	.66	.37
23	3.0	8.3	7.4	4.8	8.2	6.1	2.5	.95	.00	.00	1.2	112
24	2.4	7.3	7.1	5.2	9.2	5.8	2.1	10	.00	.00	.97	4.3
25	1.1	7.5	4.0	5.7	7.5	90	2.1	3.4	.00	.00	.41	1.3
26	.77	139	3.4	4.1	8.6	20	2.1	14	.00	.00	.28	.75
27	[illegible]	199	3.0	3.8	12	50	1.3	4.6	.00	.00	.25	.57
28	.52	74	3.0	3.5	6.9	20	1.5	2.2	.00	1.2	.25	.49
29	14	22	2.3	3.2	---	10	1.3	1.6	.00	.03	.21	.42
30	69	17	2.1	3.0	---	8.0	1.1	[illegible]	.00	.00	.18	1.5
31	79	---	2.2	2.7	---	5.0	---	1.1	---	.00	.15	---
TOTAL	315.31	2208.7	368.5	171.98	652.6	595.6	80.80	121.39	284.36	311.57	60.00	193.43
MEAN	10.2	73.6	11.9	5.55	23.3	19.2	2.69	3.92	9.48	10.1	1.94	6.45
MAX	138	607	86	38	110	194	19	40	268	248	23	112
MIN	.00	2.7	2.1	.78	2.5	4.6	.91	.74	.00	.00	.00	.04
CFSM	.71	5.15	.83	.39	1.63	1.34	.19	.27	.66	.71	.14	.45
IN	.82	5.75	.96	.45	1.70	1.55	.21	.32	.74	.81	.16	.50

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CAL YR 1985  TOTAL  8137.07   MEAN  22.3   MAX  667   MIN  .00   CFSM  1.56   IN  21.17
WTR YR 1986  TOTAL  5364.24   MEAN  14.7   MAX  607   MIN  .00   CFSM  1.03   IN  13.95
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03383000 TRADEWATER RIVER AT OLNEY, KY

LOCATION.--Lat 37°13'26", long 87°46'53", Caldwell County, Hydrologic Unit 05140205, on left bank at downstream side of bridge on State Highway 1220 at Olney, 0.9 mi upstream from Cave Creek, 5.4 mi downstream from Flynn Creek, 9.5 mi northeast of Princeton, and at mile 72.7.

DRAINAGE AREA.--255 mi^2, of which about 9 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--August 1940 to May 1984, March 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is 362.80 ft above National Geodetic Vertical Datum of 1929. Prior to July 31, 1942, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Daily discharges computed from once daily observer readings: Oct. 1 to Nov. 13, Nov. 17 to Dec. 19, Dec. 25 to Jan. 22, May 28 to June 5. Records fair, except those for periods computed from once daily observer readings which are poor.

AVERAGE DISCHARGE.--44 years (water years 1941-83, 1985-86), 334 ft^3/s, 17.79 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft^3/s (385 m^3/s), Mar. 10, 1964, gage height, 18.68 ft, (5.694 m); no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of 19.27 ft (5.873 m), from floodmarks, discharge, 17,000 ft^3/s (181 m^3/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2000 ft^3/s and maximum (*)

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 3	1600	*3,880	*15.77	No other peak greater than base discharge.			

Minimum daily discharge, 0.08 ft^3/s, Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	1700	1670	57	76	146	102	40	267	8.1	4.0	.63
2	62	3290	1650	56	83	126	93	49	270	11	3.5	.71
3	42	3900	1260	53	467	115	83	67	138	9.5	2.9	.79
4	37	3690	1060	51	1240	104	78	41	82	8.3	2.6	.44
5	34	3170	606	50	1370	97	77	31	85	8.0	2.2	.42
6	28	2570	337	53	1240	98	74	26	289	7.7	2.2	.38
7	24	1860	218	53	987	99	66	25	512	6.9	2.7	.35
8	18	1520	218	55	904	93	65	22	335	6.7	3.0	.27
9	13	1280	301	62	871	84	67	21	184	6.2	2.8	.14
10	11	513	216	65	859	79	54	19	147	9.6	5.4	.08
11	10	230	200	45	884	78	49	16	254	15	5.4	.17
12	12	204	237	35	791	631	45	15	1000	17	5.8	.55
13	21	264	266	38	467	1430	41	14	1050	14	6.1	.43
14	30	360	263	35	344	1610	43	17	642	14	4.7	1.0
15	58	327	292	34	314	1670	45	35	266	13	3.6	1.2
16	147	524	290	30	338	1710	39	304	134	16	4.8	.98
17	154	1130	264	31	929	1560	34	459	85	19	17	.73
18	41	1250	260	45	1350	1180	31	401	57	16	16	.74
19	79	1140	182	448	1410	958	31	295	43	12	4.8	.77
20	158	1150	148	819	1370	953	34	184	42	10	3.0	.79
21	429	1160	127	666	1420	785	39	110	30	8.6	2.4	3.9
22	471	1050	128	419	1250	519	51	77	22	6.9	1.8	7.7
23	753	839	125	268	733	371	71	64	19	5.7	1.3	4.4
24	1050	539	129	201	386	293	63	371	16	5.2	1.1	2.2
25	1060	330	114	163	269	243	49	1010	13	4.6	1.1	1.4
26	832	264	120	144	223	208	41	1190	11	4.5	1.1	4.6
27	358	1060	129	123	197	182	36	1300	9.6	5.5	.76	8.3
28	76	1280	116	102	170	162	35	1330	8.7	8.7	.61	9.3
29	189	1440	79	89	---	147	35	780	8.2	8.5	.54	12
30	747	1510	72	84	---	130	39	482	8.0	5.9	.57	8.0
31	1150	---	64	75	---	114	---	330	---	4.4	.60	---
TOTAL	8232	39544	11141	4449	20942	15975	1610	9125	6027.5	296.9	114.38	73.37
MEAN	266	1318	359	144	748	515	53.7	294	201	9.58	3.69	2.45
MAX	1150	3900	1670	819	1420	1710	102	1330	1050	19	17	12
MIN	10	204	64	30	76	78	31	14	8.0	4.4	.54	.08
CFSM	1.08	5.36	1.46	.59	3.04	2.09	.22	1.20	.82	.04	.01	.01
IN	1.24	5.98	1.68	.67	3.17	2.42	.24	1.38	.91	.04	.02	.01

WTR YR 1986 TOTAL 117530.15 MEAN 322 MAX 3900 MIN .08 CFSM 1.31 IN 17.77

03400500 POOR FORK AT CUMBERLAND, KY

LOCATION.--Lat 36°58'26", long 82°59'38", Harlan County, Hydrologic Unit 05130101, at left end upstream side of New York Avenue bridge at Cumberland, 250 ft upstream from Cloverlick Creek, 0.6 mi downstream from Looney Creek, and at mile 718.8.

DRAINAGE AREA.--82.3 mi^2.

PERIOD OF RECORD.--March 1940 to current year.

REVISED RECORDS.--WSP 923: 1940(M). WSP 1336: 1949-51, 1953(P). WSP 1506: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,410.15 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1968, at same site and datum 5.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1-7, Nov. 3-6, Nov. 28 to Dec. 10, Jan. 2-11, 17, 27-29, and Mar. 20 to Apr. 3. Records good except for estimated daily discharges, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--46 years, 141 ft^3/s, 23.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft^3/s, Jan. 29, 1957, gage height, 16.50 ft, present datum, from rating curve extended above 3,500 ft^3/s on basis of slope-area measurement of peak flow; no flow for part of Oct. 28, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1927 reached a stage of about 15.2 ft, present datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 18	0100	*2,380	*7.73	No other peak greater than base discharge.			

Minimum daily discharge, 6.0 ft^3/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	15	300	67	96	281	78	76	81	21	11	55
2	25	16	210	65	209	242	75	72	68	27	12	56
3	32	60	170	70	532	217	73	68	60	28	12	40
4	30	200	150	66	665	193	71	63	53	21	9.7	32
5	28	350	130	62	438	170	67	60	49	19	9.9	32
6	26	320	120	60	506	161	65	56	57	18	9.1	26
7	25	205	100	59	937	145	65	53	54	17	9.6	20
8	24	109	94	55	466	125	61	55	59	17	11	16
9	25	69	88	54	314	128	59	52	95	24	11	15
10	25	54	80	53	252	136	57	45	107	75	11	13
11	25	44	76	52	215	202	56	46	77	62	58	12
12	23	36	87	51	175	217	56	73	59	36	37	24
13	25	38	129	50	148	244	55	68	49	39	21	16
14	28	36	207	47	136	314	54	79	42	53	16	14
15	29	33	197	47	138	711	51	92	38	34	14	13
16	25	35	166	43	142	557	51	109	35	28	12	11
17	23	42	141	41	1210	360	50	195	31	24	15	9.6
18	26	36	118	45	1770	280	50	139	29	21	20	9.3
19	22	34	90	85	654	231	47	118	26	20	19	8.1
20	22	33	92	98	772	210	46	140	25	20	32	13
21	27	33	80	86	451	130	69	121	24	22	28	13
22	29	78	73	119	358	160	76	101	23	17	19	9.8
23	30	105	82	166	343	150	74	91	22	16	16	10
24	30	97	73	155	321	140	70	92	22	15	20	19
25	19	77	69	142	277	120	69	101	22	14	16	14
26	15	69	67	140	246	110	67	88	21	14	13	11
27	14	161	63	130	305	100	62	157	20	14	14	9.2
28	14	700	58	120	326	95	74	183	22	15	27	8.1
29	14	1400	54	110	---	90	92	172	21	15	22	7.5
30	14	500	50	93	---	86	79	134	21	13	17	6.0
31	14	---	57	81	---	82	---	101	---	12	16	---
TOTAL	724	4985	3471	2512	12402	6437	1919	3000	1312	771	558.3	542.6
MEAN	23.4	166	112	81.0	443	208	64.0	96.8	43.7	24.9	18.0	18.1
MAX	32	1400	300	166	1770	711	92	195	107	75	58	56
MIN	14	15	50	41	96	82	46	45	20	12	9.1	6.0
CFSM	.28	2.02	1.36	.98	5.38	2.53	.78	1.18	.53	.30	.22	.22
IN	.33	2.25	1.57	1.14	5.61	2.91	.87	1.36	.59	.35	.25	.25

CAL YR 1985 TOTAL 43171 MEAN 118 MAX 1400 MIN 14 CFSM 1.43 IN 19.51
WTR YR 1986 TOTAL 38633.9 MEAN 106 MAX 1770 MIN 6.0 CFSM 1.29 IN 17.46

CUMBERLAND RIVER BASIN

03400785 MARTINS FORK ABOVE SMITH, KY

LOCATION.--Lat 36°43'34", long 83°17'17", Harlan County, Hydrologic Unit 05130101, on right bank 50 ft downstream from private bridge off State Highway 987 and .1 mile west of Sampson post office and 8 miles southwest of Cawood.

DRAINAGE AREA.--23.8 mi²

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--May 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is 13.128 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-9, Dec. 21-25, Jan. 14-17, 21-30, Feb. 15, 16, Mar. 14-25, Apr. 11-13. Records good except for estimated discharges which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,490 ft³/s, Feb. 18, gage height, 6.18 ft; minimum discharge, 0.24 ft³/s, Aug. 7-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.2	72	41	23	57	16	20	46	5.5	.67	83
2	7.0	5.3	58	40	43	52	15	19	40	6.8	.76	97
3	13	11	48	37	88	46	14	17	31	11	.51	101
4	8.0	82	40	32	114	40	14	15	26	6.6	.45	58
5	5.8	167	36	30	101	37	14	14	24	4.2	.39	43
6	4.8	102	33	27	107	33	13	14	21	3.2	.31	29
7	4.0	64	28	24	125	24	13	13	18	2.6	.27	19
8	3.4	42	25	20	94	19	13	13	19	2.2	.24	16
9	3.0	30	24	22	69	21	13	11	17	2.1	.24	13
10	2.8	23	22	19	58	22	15	9.4	14	13	.41	9.6
11	2.7	19	21	16	50	22	15	8.9	20	12	21	8.0
12	2.6	17	26	15	37	24	14	8.5	14	11	12	22
13	2.7	15	35	14	31	32	14	11	12	21	3.5	15
14	2.9	13	50	13	25	50	14	17	11	20	1.8	10
15	2.9	12	47	12	22	150	14	325	9.3	13	1.8	8.5
16	3.0	13	41	11	20	90	14	133	7.9	9.1	1.7	7.5
17	2.9	21	35	11	445	70	14	91	6.8	6.0	2.2	7.6
18	2.6	19	29	12	793	60	14	66	6.0	4.1	6.6	6.8
19	2.2	17	26	34	229	70	13	53	5.3	3.4	8.4	8.6
20	2.0	15	24	42	149	100	12	43	4.8	2.6	29	10
21	3.0	14	23	34	97	70	21	34	4.3	2.4	63	12
22	15	56	21	30	73	50	20	29	3.9	2.0	16	8.3
23	7.0	67	20	27	62	40	19	31	3.7	1.5	8.9	9.4
24	6.4	50	19	25	52	35	18	58	4.0	1.4	8.3	14
25	6.2	37	18	30	47	32	17	84	3.7	1.1	4.2	12
26	5.6	33	17	25	48	30	16	76	3.1	1.0	3.5	9.1
27	4.7	31	16	23	58	28	16	131	2.9	1.1	12	7.7
28	4.3	184	16	22	60	26	19	131	15	1.1	12	13
29	4.1	270	15	21	---	24	26	105	3.6	1.4	7.9	9.1
30	4.1	102	15	20	---	22	22	81	7.1	1.6	5.2	7.4
31	4.1	---	22	19	---	18	---	61	---	.71	3.6	---
TOTAL	146.8	1535.5	922	748	3120	1394	472	1722.8	411.4	174.71	236.85	674.6
MEAN	4.74	51.2	29.7	24.1	111	45.0	15.7	55.6	13.7	5.64	7.64	22.5
MAX	15	270	72	42	793	150	26	325	48	21	63	101
MIN	2.0	4.2	15	11	20	18	12	8.5	2.9	.71	.24	6.8
CFSM	.20	2.15	1.25	1.01	4.67	1.89	.66	2.34	.58	.24	.32	.95
IN	.23	2.40	1.44	1.17	4.88	2.18	.74	2.70	.64	.27	.37	1.06

WTR YR 1986 TOTAL 11558.66 MEAN 31.7 MAX 793 MIN .24 CFSM 1.33 IN 18.10

03400785 MARTINS FORK ABOVE SMITH, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1985 to September 1986.
PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: October 1985 to September 1986.
INSTRUMENTATION.--Sediment pumping sampler since June 17, 1985.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 11,900 mg/L, Nov. 28, 1985; minimum daily mean, 1 mg/L, Dec. 8, 1985, Jan. 16, 18, 1986.
SEDIMENT LOADS: Maximum daily, 10,400 tons, Nov. 28, 1985; minimum daily, 0.02 ton, Aug. 6-9, 1986.
EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 11,900 mg/L, Nov. 28; minimum daily mean, 1 mg/L, on Dec. 8, Jan. 16-18.
SEDIMENT LOADS: Maximum daily, 10,400 tons, Nov. 28; minimum daily, 0.02 ton, Aug. 6-9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUN 07...	1330	18	21.0	140	36	1.8
JUL 22...	1245	2.9	26.0	--	42	0.33
AUG 01...	1225	15	22.5	--	378	15

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 10...	1355	2.6	16.0	--	2	0.01
NOV 05...	1235	161	--	45	49	21
NOV 19...	1345	18	15.0	--	17	0.82
MAY 13...	1110	9.8	18.0	84	30	0.79
MAY 15...	1355	284	17.0	51	265	203
JUN 24...	1135	4.1	24.0	280	17	0.19
AUG 11...	1300	37	28.0	560	516	53
AUG 20...	1010	32	--	154	1410	122
SEP 01...	1410	149	26.0	140	2890	1160
SEP 01...	1415	162	--	--	2770	1210

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SED. TOTAL, FALL DIAM. % FINER THAN .002 MM	SED. TOTAL, FALL DIAM. % FINER THAN .004 MM	SED. TOTAL, FALL DIAM. % FINER THAN .008 MM	SED. TOTAL, FALL DIAM. % FINER THAN .016 MM	SED. TOTAL, FALL DIAM. % FINER THAN .031 MM	SED. TOTAL, FALL DIAM. % FINER THAN .062 MM	SED. TOTAL, FALL DIAM. % FINER THAN .125 MM	SED. TOTAL, FALL DIAM. % FINER THAN .250 MM
AUG 11...	1300	52	68	82	92	98	100	--	--
AUG 20...	1010	63	82	93	97	98	100	--	--
SEP 01...	1415	31	45	63	80	92	97	99	100

03400785 MARTINS FORK ABOVE SMITH, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	4.0	---	.30	4.2	25	.31	72	16	3.2
2	7.0	---	.60	5.3	71	.99	58	12	1.9
3	13	---	1.0	11	53	2.5	48	9	1.2
4	8.0	---	.70	82	175	36	40	8	.82
5	5.8	---	.60	167	52	24	36	5	.53
6	4.8	---	.50	102	33	9.1	33	5	.43
7	4.0	---	.40	64	21	3.6	28	3	.22
8	3.4	---	.30	42	17	1.9	25	1	.06
9	3.0	---	.20	30	15	1.3	24	2	.15
10	2.8	45	.41	23	14	.90	22	2	.12
11	2.7	29	.22	19	13	.68	21	3	.18
12	2.6	13	.09	17	12	.54	26	7	.50
13	2.7	12	.09	15	8	.33	35	24	2.4
14	2.9	19	.16	13	4	.14	50	12	1.7
15	2.9	19	.15	12	5	.15	47	3	.42
16	3.0	48	.41	13	13	.50	41	2	.19
17	2.9	62	.50	21	17	.93	35	5	.47
18	2.6	13	.09	19	11	.55	29	4	.35
19	2.2	13	.08	17	7	.33	26	3	.22
20	2.0	8	.04	15	5	.21	24	4	.25
21	3.0	10	.09	14	10	.41	23	3	.18
22	15	25	1.1	56	1340	235	21	15	.82
23	7.0	15	.28	67	575	107	20	7	.36
24	6.4	9	.15	50	24	3.5	19	3	.15
25	6.2	12	.20	37	8	.84	18	2	.11
26	5.6	12	.18	33	14	1.2	17	3	.14
27	4.7	10	.12	31	68	6.0	16	18	.76
28	4.3	8	.09	184	11900	10400	16	5	.23
29	4.1	6	.06	270	2470	2810	15	2	.08
30	4.1	8	.09	102	32	9.0	15	9	.37
31	4.1	6	.07	---	---	---	22	21	1.6
TOTAL	146.8	---	9.27	1535.5	---	13657.91	922	---	20.11
		JANUARY			FEBRUARY			MARCH	
1	41	19	2.1	23	43	2.6	57	8	1.2
2	40	14	1.5	43	42	5.5	52	11	1.6
3	37	12	1.2	88	448	127	46	15	1.8
4	32	8	.66	114	141	47	40	7	.73
5	30	7	.54	101	54	15	37	7	.70
6	27	6	.45	107	41	12	33	4	.35
7	24	5	.36	125	71	24	24	4	.28
8	20	4	.21	94	23	6.0	19	4	.23
9	22	10	.57	69	14	2.7	21	3	.18
10	19	7	.35	58	11	1.8	22	3	.21
11	16	5	.23	50	10	1.3	22	12	.70
12	15	2	09	37	10	1.0	24	16	1.0
13	14	2	.06	31	13	1.1	32	28	2.5
14	13	14	.48	25	12	.81	50	58	7.8
15	12	4	.13	22	43	2.5	150	44	18
16	11	1	.04	20	33	1.8	90	21	5.1
17	11	1	.04	445	857	1640	70	15	2.9
18	12	1	.04	793	749	2050	60	18	3.0
19	34	45	4.7	229	314	195	70	27	5.0
20	42	16	1.8	149	180	73	100	16	4.2
21	34	5	.48	97	65	17	70	10	1.9
22	30	4	.29	73	34	6.7	50	9	1.2
23	27	2	.15	62	21	3.6	40	8	.83
24	25	2	.16	52	13	1.8	35	7	.67
25	30	2	.19	47	10	1.2	32	7	.62
26	25	4	.25	48	9	1.2	30	8	.64
27	23	3	.18	58	27	4.3	28	9	.70
28	22	6	.38	60	9	1.5	26	13	91
29	21	4	.25	---	---	---	24	10	.67
30	20	6	.35	---	---	---	22	6	.36
31	19	57	3.1	---	---	---	18	12	.57
TOTAL	748	---	21.33	3120	---	4247.41	1394	---	66.55

03400785 MARTINS FORK ABOVE SMITH, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT^3/S)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT^3/S)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT^3/S)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			MAY			JUNE	
1	16	6	.25	20	17	.94	48	11	1.4
2	15	3	.13	19	16	.80	40	9	.97
3	14	3	.11	17	14	.61	31	15	1.2
4	14	10	.37	15	15	.59	26	17	1.2
5	14	4	.15	14	15	.56	24	19	1.2
6	13	67	2.4	14	19	.71	21	16	.91
7	13	48	1.7	13	15	.50	18	32	1.6
8	13	21	.74	13	70	2.7	19	25	1.3
9	13	10	.35	11	21	.60	17	17	.79
10	15	7	.29	9.4	17	.43	14	16	.61
11	15	6	.26	8.9	18	.42	20	253	14
12	14	4	.16	8.5	16	.36	14	114	4.2
13	14	5	.19	11	3	1.3	12	42	1.4
14	14	8	.29	17	2660	253	11	29	.84
15	14	18	.70	325	6900	8740	9.3	26	.64
16	14	7	.28	133	847	279	7.9	28	.60
17	14	3	.11	91	426	110	6.8	29	.53
18	14	6	.23	66	48	8.9	6.0	30	.49
19	13	13	.43	53	27	3.8	5.3	33	.48
20	12	24	82	43	22	2.6	4.8	24	.31
21	21	145	8.2	34	13	1.2	4.3	29	.33
22	20	17	.91	29	19	1.5	3.9	25	.26
23	19	4	.18	31	47	5.1	3.7	18	.18
24	18	4	.18	58	167	27	4.0	23	.25
25	17	3	.14	84	357	79	3.7	24	.23
26	16	6	.25	76	94	19	3.1	36	.30
27	16	5	.21	131	187	68	2.9	49	.48
28	19	68	4.5	131	91	32	15	3010	138
29	26	35	2.5	105	45	13	8.6	143	3.4
30	22	21	1.2	81	19	4.2	7.1	140	2.7
31	---	---	---	61	14	2.3	---	---	---
TOTAL	472	---	28.23	1722.8	---	9660.12	411.4	---	180.80
		JULY			AUGUST			SEPTEMBER	
1	5.5	105	1.6	.67	25	.05	83	1140	317
2	6.8	77	1.5	.76	29	.06	97	654	200
3	11	99	3.0	.51	79	.11	101	396	116
4	6.6	40	.72	.45	37	.05	58	222	35
5	4.2	69	.73	.39	28	.03	43	90	11
6	3.2	86	.76	.31	22	.02	29	43	3.4
7	2.6	48	.34	.27	25	.02	19	22	1.1
8	2.2	27	.17	.24	28	.02	16	14	.62
9	2.2	32	.26	.24	24	.02	13	8	.29
10	13	466	18	.41	40	.06	9.6	9	.24
11	12	2900	126	21	528	40	8.0	8	.17
12	11	1240	41	12	142	5.0	22	16	1.0
13	21	884	75	3.5	84	.79	15	10	.40
14	20	507	31	1.8	66	.32	10	7	.19
15	13	126	4.5	1.8	67	.34	8.5	5	.10
16	9.1	95	2.3	1.7	62	.27	7.5	5	.11
17	6.0	83	1.4	2.2	70	.52	7.6	9	.19
18	4.1	72	.79	6.6	93	1.8	6.8	6	.11
19	3.4	62	.57	8.4	462	29	8.6	14	.35
20	2.6	55	.39	29	1310	118	10	32	1.5
21	2.4	53	.35	63	1160	354	12	63	2.2
22	2.0	58	.30	16	70	3.1	8.3	36	.80
23	1.5	64	.26	8.9	44	1.1	9.4	39	1.0
24	1.4	55	.21	8.3	48	1.1	14	16	.60
25	1.1	46	.14	4.3	81	.91	12	8	.25
26	1.0	37	.10	3.5	65	.81	9.1	7	.17
27	1.1	42	.12	12	539	21	7.7	11	.22
28	1.1	41	.12	12	795	29	13	878	56
29	1.4	48	.25	7.9	100	2.2	9.1	248	6.6
30	1.6	53	.25	5.2	67	.94	7.4	11	.22
31	.71	50	.10	3.6	51	.50	---	---	---
TOTAL	174.81	---	312.23	236.95	---	611.14	674.6	---	756.83
YEAR	11558.86		29571.93						

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to current year.
pH: October 1979 to current year.
WATER TEMPERATURES: October 1979 to current year.
DISSOLVED OXYGEN: October 1979 to current year.
INSTRUMENTATION.--Water-quality monitor since October 1979.
REMARKS.--Four submersible pumps are located on Martins Fork Dam, at four different elevations referenced to National Geodetic Vertical Datum. Pump 1 is located near the bottom of the lake, at an elevation of 1,272 ft; pump 2 is at an elevation of 1,285 ft; pump 3 at an elevation of 1,298 ft; and pump 4 at an elevation of 1,308 occasionally. Each lake level is sampled once every four hours, or six times per day. A maximum, minimum, and mean value for each parameter is determined for each level. The monitor was shut down from Nov. 23 to Mar. 3.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	242	200	234	252	248	249						
2	243	240	242	249	246	248						
3	242	241	241	248	246	247						
4	246	241	243	250	246	248						
5	243	240	241	242	157	189						
6	243	241	242	142	111	123						
7	243	241	242	108	102	105						
8	244	242	243	102	99	101						
9	244	243	243	100	95	98						
10	244	243	244	106	103	104						
11	246	243	245	117	112	114						
12	247	243	245	119	118	118						
13	246	245	245	122	120	121						
14	247	246	247	125	123	124						
15	247	245	246	125	124	124						
16	251	246	248	126	125	125						
17	---	---	---	128	126	127						
18	250	248	249	127	127	127						
19	252	248	250	131	127	128						
20	252	248	249	---	---	---						
21	252	249	250	---	---	---						
22	253	248	251	---	---	---						
23	252	250	251	---	---	---						
24	252	251	252	---	---	---						
25	256	251	253	---	---	---						
26	254	252	253	---	---	---						
27	253	251	252	---	---	---						
28	253	251	252	---	---	---						
29	253	250	252	---	---	---						
30	254	250	252	---	---	---						
31	251	248	250	---	---	---						

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	148	147	148	153	150	152
2				---	---	---	148	147	148	153	152	153
3				---	---	---	148	147	148	154	153	154
4				---	---	---	148	148	148	155	154	154
5				---	---	---	148	147	148	155	154	155
6				---	---	---	147	147	147	156	155	155
7				---	---	---	147	146	147	156	155	156
8				---	---	---	147	147	147	157	156	157
9				---	---	---	147	146	147	157	157	157
10				---	---	---	147	146	147	158	157	157
11				---	---	---	147	146	147	158	157	158
12				---	---	---	147	145	146	159	157	158
13				139	133	139	147	146	147	159	158	158
14				144	141	142	147	147	147	159	159	159
15				144	141	142	147	147	147	161	160	160
16				153	140	145	148	147	147	161	161	161
17				157	148	153	148	147	148	164	161	162
18				157	153	154	148	147	148	165	162	163
19				157	128	143	148	147	148	165	162	164
20				152	145	149	149	148	148	167	164	165
21				148	145	147	150	148	148	166	165	166
22				144	136	140	149	148	149	166	165	166
23				151	137	143	149	147	148	166	166	166
24				153	145	150	151	149	149	166	165	166
25				153	151	152	150	149	150	167	166	167
26				153	151	152	150	149	149	168	166	167
27				152	150	151	150	149	150	170	167	168
28				150	149	150	150	149	149	168	168	168
29				149	149	149	150	149	150	169	167	168
30				149	148	149	151	150	150	169	168	168
31				---	---	---	---	---	---	170	168	169

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	170	169	169	185	183	184	194	191	192	---	---	---
2	170	169	170	188	184	185	194	192	193	---	---	---
3	171	169	170	185	184	184	195	192	193	---	---	---
4	171	170	170	187	185	186	195	193	194	---	---	---
5	171	170	171	187	184	186	198	194	195	---	---	---
6	171	171	171	186	185	185	195	193	194	---	---	---
7	173	171	172	189	185	186	196	194	195	---	---	---
8	174	172	172	188	185	186	195	193	194	---	---	---
9	173	172	173	187	186	186	194	188	192	194	194	194
10	174	173	174	190	186	188	---	---	---	194	191	192
11	175	174	174	190	186	187	---	---	---	194	190	192
12	175	174	175	189	186	187	---	---	---	195	191	193
13	176	175	175	189	187	188	---	---	---	197	193	194
14	177	175	176	187	186	187	---	---	---	196	193	194
15	177	175	176	190	186	188	---	---	---	196	193	195
16	177	176	176	190	187	188	---	---	---	198	194	195
17	178	176	177	189	188	189	---	---	---	196	193	194
18	179	178	178	190	188	189	---	---	---	198	193	196
19	180	178	179	190	189	189	---	---	---	196	194	196
20	181	179	180	191	189	190	---	---	---	198	195	196
21	180	179	180	191	188	190	---	---	---	197	195	196
22	180	178	179	192	189	190	---	---	---	197	197	197
23	181	179	180	190	189	190	---	---	---	199	196	197
24	182	181	181	191	189	190	---	---	---	200	196	198
25	183	181	182	192	190	191	---	---	---	201	196	198
26	183	181	182	192	190	191	---	---	---	199	197	198
27	183	182	183	192	190	191	---	---	---	200	198	199
28	184	182	183	193	191	192	---	---	---	201	197	199
29	186	182	183	193	191	192	---	---	---	202	199	200
30	185	182	184	193	192	192	---	---	---	202	198	200
31	---	---	---	193	192	193	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	161	155	158	184	182	183						
2	167	161	164	182	181	181						
3	175	167	171	181	180	181						
4	175	169	173	181	179	180						
5	176	174	176	180	169	178						
6	177	176	177	161	122	141						
7	177	176	177	169	117	132						
8	177	177	177	125	113	118						
9	178	176	177	161	117	135						
10	178	176	177	160	126	143						
11	177	176	177	139	128	134						
12	177	177	177	140	124	132						
13	179	177	178	153	119	134						
14	179	178	179	157	127	146						
15	180	178	179	157	145	155						
16	181	179	180	158	150	154						
17	181	180	181	167	151	160						
18	182	180	181	163	162	163						
19	181	180	181	164	159	162						
20	182	180	181	---	---	---						
21	182	181	181	---	---	---						
22	182	181	182	---	---	---						
23	183	182	182	---	---	---						
24	184	182	183	---	---	---						
25	186	183	184	---	---	---						
26	185	182	184	---	---	---						
27	186	183	185	---	---	---						
28	188	183	186	---	---	---						
29	139	183	187	---	---	---						
30	184	182	182	---	---	---						
31	184	182	183	---	---	---						

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	147	147	147	166	158	164
2				---	---	---	147	147	147	166	161	164
3				---	---	---	147	146	147	166	164	165
4				---	---	---	147	147	147	165	163	164
5				---	---	---	147	147	147	164	162	163
6				---	---	---	148	147	147	163	160	162
7				---	---	---	148	147	148	163	161	162
8				---	---	---	148	147	147	163	161	162
9				---	---	---	148	147	147	163	161	162
10				---	---	---	148	147	147	161	160	160
11				---	---	---	148	147	147	162	159	160
12				---	---	---	147	147	147	160	159	160
13				138	138	138	148	147	147	160	159	159
14				141	138	139	148	147	147	160	159	160
15				141	140	141	151	147	148	160	158	159
16				146	140	142	150	147	148	159	158	159
17				157	139	148	148	147	148	159	158	159
18				156	138	148	148	148	148	161	159	159
19				155	128	134	153	147	149	160	158	159
20				149	133	140	151	148	149	160	158	159
21				141	135	137	153	148	150	159	158	159
22				137	135	136	152	149	150	160	159	159
23				138	136	137	150	149	150	160	157	159
24				145	140	143	150	149	150	159	158	159
25				149	143	145	152	149	150	159	158	158
26				148	143	146	155	149	151	159	157	158
27				148	146	147	157	151	154	158	155	157
28				148	147	147	163	150	156	155	151	153
29				147	147	147	164	153	161	154	147	151
30				147	146	147	164	160	162	149	142	145
31				147	147	147	---	---	---	144	135	142

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

PUMP NUMBER 2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	145	132	139	141	124	130	141	134	137	---	---	---
2	144	131	137	134	122	128	143	133	137	---	---	---
3	142	131	139	135	127	131	143	133	138	---	---	---
4	140	133	137	138	125	130	151	135	139	---	---	---
5	143	136	140	138	128	132	147	136	141	---	---	---
6	149	131	141	141	125	131	158	136	144	---	---	---
7	146	133	140	135	125	130	157	138	146	---	---	---
8	150	132	139	134	126	128	151	139	143	---	---	---
9	141	133	138	134	127	130	147	136	141	145	142	144
10	146	135	139	136	125	131	---	---	---	151	146	148
11	142	130	137	134	128	132	---	---	---	150	145	148
12	139	127	133	134	126	131	---	---	---	154	147	150
13	137	131	133	136	129	132	---	---	---	152	146	148
14	136	128	133	136	125	132	---	---	---	151	144	148
15	139	131	134	134	129	132	---	---	---	149	145	147
16	137	127	132	134	131	133	---	---	---	149	144	147
17	138	129	134	135	129	132	---	---	---	149	147	148
18	138	126	132	134	130	132	---	---	---	149	146	148
19	135	129	132	135	130	132	---	---	---	149	147	148
20	134	126	130	140	130	134	---	---	---	150	147	148
21	135	127	131	133	130	132	---	---	---	149	147	148
22	138	124	130	134	131	132	---	---	---	149	148	149
23	141	123	131	134	131	133	---	---	---	151	149	150
24	137	122	131	137	132	133	---	---	---	156	151	153
25	136	126	131	141	131	134	---	---	---	160	155	156
26	133	123	129	134	132	133	---	---	---	162	158	159
27	135	122	130	137	132	134	---	---	---	165	159	161
28	143	124	132	136	132	134	---	---	---	166	160	162
29	134	126	129	135	133	134	---	---	---	167	161	165
30	133	127	130	135	133	134	---	---	---	173	163	168
31	---	---	---	138	132	135	---	---	---	---	---	---

PUMP NUMBER 3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	172	171	171	183	181	182						
2	172	170	171	181	179	180						
3	174	172	172	179	179	179						
4	176	174	175	180	179	180						
5	176	175	175	180	178	179						
6	176	176	176	173	170	172						
7	176	176	176	171	170	171						
8	177	177	177	168	165	166						
9	178	177	178	166	158	163						
10	178	178	178	163	157	161						
11	178	177	177	164	154	161						
12	178	177	177	163	160	162						
13	177	177	177	166	161	164						
14	177	177	177	167	165	166						
15	179	177	178	168	167	167						
16	178	178	178	168	167	167						
17	179	178	178	167	166	167						
18	179	179	179	166	166	166						
19	179	179	179	166	165	166						
20	179	179	179	---	---	---						
21	179	179	179	---	---	---						
22	179	179	179	---	---	---						
23	180	179	179	---	---	---						
24	180	179	180	---	---	---						
25	180	180	180	---	---	---						
26	181	180	181	---	---	---						
27	180	180	180	---	---	---						
28	181	180	181	---	---	---						
29	182	181	182	---	---	---						
30	182	181	182	---	---	---						
31	183	182	182	---	---	---						

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	146	143	145	158	155	156
2				---	---	---	146	144	145	159	157	158
3				---	---	---	148	145	146	157	157	157
4				---	---	---	149	144	147	158	157	157
5				---	---	---	149	148	149	158	157	157
6				---	---	---	150	149	149	158	157	158
7				---	---	---	150	149	150	159	158	159
8				---	---	---	150	149	150	160	158	159
9				---	---	---	150	149	150	159	158	159
10				---	---	---	151	149	150	160	158	159
11				---	---	---	151	150	151	165	159	161
12				---	---	---	152	150	151	162	161	161
13				138	136	137	152	150	151	162	159	160
14				138	138	138	152	151	152	161	158	160
15				140	136	137	153	152	153	160	157	159
16				140	133	139	153	152	153	160	156	159
17				142	137	138	153	152	153	158	154	155
18				137	128	132	152	152	152	156	147	153
19				129	108	124	153	152	153	153	143	147
20				132	129	130	153	152	153	154	145	148
21				135	132	134	154	152	153	149	136	145
22				137	136	136	155	152	153	147	139	143
23				137	136	137	155	153	154	143	135	138
24				141	138	140	154	154	154	138	134	136
25				143	141	142	154	153	153	140	129	134
26				143	143	143	157	153	155	133	129	131
27				144	143	144	154	153	154	134	112	126
28				143	142	143	157	154	156	134	117	126
29				144	143	143	157	148	154	136	114	123
30				145	143	144	157	152	155	146	126	138
31				146	144	145	---	---	---	153	125	144

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	153	135	148	189	178	184	195	194	195	---	---	---
2	162	144	155	189	179	184	196	194	195	---	---	---
3	160	141	152	187	175	184	195	194	195	---	---	---
4	172	152	161	188	186	187	195	194	195	---	---	---
5	160	150	155	188	185	187	196	194	195	---	---	---
6	168	140	157	188	185	187	197	194	196	---	---	---
7	164	147	156	189	186	188	196	195	196	---	---	---
8	170	148	160	188	183	186	196	195	196	---	---	---
9	166	138	156	190	178	186	196	191	194	189	185	188
10	162	145	155	189	187	188	---	---	---	190	187	188
11	181	143	165	190	179	185	---	---	---	188	187	188
12	173	137	159	190	174	187	---	---	---	190	188	189
13	165	157	162	193	186	189	---	---	---	189	188	188
14	166	156	160	189	182	187	---	---	---	189	188	188
15	173	152	161	189	188	189	---	---	---	188	188	188
16	174	150	166	190	187	189	---	---	---	188	185	187
17	174	156	166	190	188	189	---	---	---	189	188	188
18	181	169	178	191	188	190	---	---	---	189	188	189
19	181	179	180	193	190	192	---	---	---	189	186	188
20	180	167	177	192	187	191	---	---	---	189	188	188
21	182	165	176	193	192	192	---	---	---	188	184	187
22	181	174	177	193	192	192	---	---	---	188	187	188
23	184	156	177	193	192	193	---	---	---	189	185	188
24	183	156	175	194	193	193	---	---	---	190	189	189
25	187	176	183	197	193	195	---	---	---	191	190	190
26	185	170	182	196	193	195	---	---	---	190	190	190
27	186	176	182	197	195	196	---	---	---	191	189	190
28	187	171	183	197	196	197	---	---	---	191	190	191
29	186	182	185	196	195	196	---	---	---	193	191	191
30	188	170	184	197	195	196	---	---	---	196	191	192
31	---	---	---	196	195	196	---	---	---	---	---	---

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	174	172	173									
2	172	170	171									
3	173	172	172									
4	175	173	175									
5	176	175	175									
6	176	176	176									
7	177	176	176									
8	178	177	177									
9	178	177	177									
10	---	---	---									
11	---	---	---									
12	---	---	---									
13	---	---	---									
14	---	---	---									
15	---	---	---									
16	---	---	---									
17	---	---	---									
18	---	---	---									
19	---	---	---									
20	---	---	---									
21	---	---	---									
22	---	---	---									
23	---	---	---									
24	---	---	---									
25	---	---	---									
26	---	---	---									
27	---	---	---									
28	---	---	---									
29	---	---	---									
30	---	---	---									
31	---	---	---									

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1										---	---	---
2										---	---	---
3										---	---	---
4										---	---	---
5										---	---	---
6										---	---	---
7										---	---	---
8										---	---	---
9										---	---	---
10										---	---	---
11										---	---	---
12										---	---	---
13										---	---	---
14										---	---	---
15										---	---	---
16										---	---	---
17										---	---	---
18										---	---	---
19										---	---	---
20										---	---	---
21										---	---	---
22										---	---	---
23										---	---	---
24										---	---	---
25										---	---	---
26										---	---	---
27										151	151	151
28										152	150	151
29										153	150	151
30										153	152	153
31										158	153	156

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	158	157	157	189	188	189	196	194	195	---	---	---
2	161	158	159	189	188	189	196	194	195	---	---	---
3	168	163	166	188	188	188	195	194	195	---	---	---
4	168	167	168	189	187	188	195	194	195	---	---	---
5	172	168	170	190	188	189	197	194	196	---	---	---
6	173	170	172	191	189	191	---	---	---	---	---	---
7	174	172	173	191	190	191	---	---	---	---	---	---
8	175	173	174	193	191	192	---	---	---	---	---	---
9	175	174	175	192	190	191	---	---	---	187	186	186
10	175	175	175	190	189	189	---	---	---	187	186	187
11	175	174	175	189	185	188	---	---	---	188	187	187
12	176	174	175	189	189	189	---	---	---	188	186	187
13	177	176	176	189	186	188	---	---	---	189	188	188
14	179	177	178	189	188	189	---	---	---	189	188	188
15	180	178	179	190	189	189	---	---	---	189	188	188
16	181	178	180	190	189	190	---	---	---	188	187	188
17	182	180	181	191	189	190	---	---	---	189	187	188
18	181	180	181	191	190	191	---	---	---	189	188	188
19	182	180	181	191	190	191	---	---	---	189	187	188
20	182	181	181	192	191	192	---	---	---	188	186	188
21	184	181	182	193	191	192	---	---	---	188	188	188
22	184	182	183	194	192	193	---	---	---	188	188	188
23	187	184	185	194	192	193	---	---	---	---	---	---
24	187	185	186	195	133	194	---	---	---	188	187	188
25	187	186	187	195	194	195	---	---	---	189	187	188
26	187	186	187	196	194	195	---	---	---	189	188	189
27	187	186	187	196	195	195	---	---	---	190	189	190
28	187	185	186	197	196	136	---	---	---	190	186	189
29	187	185	186	197	196	196	---	---	---	190	187	189
30	189	186	187	197	196	196	---	---	---	190	189	190
31	---	---	---	196	195	195	---	---	---	---	---	---

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 1

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.6	6.6	6.6	6.6							---	---
2	6.6	6.6	6.6	6.6							---	---
3	6.6	6.6	6.6	6.6							---	---
4	6.6	6.6	6.6	6.6							---	---
5	6.9	6.6	6.9	6.8							---	---
6	6.8	6.5	6.8	6.7							---	---
7	6.7	6.5	6.7	6.6							---	---
8	6.5	6.5	6.6	6.6							---	---
9	6.5	6.5	6.6	6.6							---	---
10	6.5	6.4	6.6	6.6							---	---
11	6.6	6.5	6.6	6.6							---	---
12	6.6	6.6	6.6	6.6							---	---
13	6.6	6.6	6.6	6.6							7.1	7.0
14	6.6	6.6	6.6	6.6							7.1	7.0
15	6.6	6.6	6.6	6.6							7.5	7.0
16	6.6	6.6	6.6	6.6							7.0	7.0
17	---	---	6.6	6.5							7.5	7.0
18	6.6	6.6	6.5	6.5							7.0	6.9
19	6.6	6.6	6.5	6.5							7.4	6.9
20	6.6	6.6	---	---							6.9	6.9
21	6.6	6.6	---	---							7.4	6.9
22	6.6	6.6	---	---							7.2	7.0
23	6.6	6.6	---	---							7.1	7.0
24	6.6	6.4	---	---							7.0	6.8
25	6.5	6.4	---	---							6.9	6.7
26	6.5	6.5	---	---							6.9	6.6
27	6.5	6.5	---	---							6.9	6.6
28	6.6	6.5	---	---							6.9	6.5
29	6.6	6.6	---	---							6.8	6.8
30	6.6	6.6	---	---							6.8	6.8
31	6.6	6.6	---	---							---	---

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03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 1

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.8	6.8	---	---	6.7	6.6	7.0	6.9	7.1	7.1	---	---
2	6.8	6.8	---	---	6.7	6.6	7.0	7.0	7.1	7.1	---	---
3	6.8	6.8	---	---	6.7	6.6	7.0	6.9	7.1	7.1	---	---
4	6.8	6.7	---	---	6.7	6.7	7.0	7.0	7.1	7.1	---	---
5	6.8	6.7	---	---	6.7	6.7	7.0	7.0	7.1	7.1	---	---
6	6.7	5.8	---	---	6.7	6.7	7.0	7.0	7.1	7.1	---	---
7	6.7	5.7	---	---	6.7	6.7	7.0	7.0	7.1	7.1	---	---
8	6.7	6.7	---	---	6.8	6.7	7.0	7.0	7.1	7.1	---	---
9	6.7	6.6	---	---	6.8	6.7	7.0	7.0	7.1	7.1	7.1	7.0
10	6.7	5.5	---	---	6.8	6.7	7.0	7.0	---	---	7.1	7.1
11	6.6	6.6	---	---	6.8	6.7	7.0	7.0	---	---	7.1	7.1
12	6.6	6.6	---	---	6.8	6.8	7.0	7.0	---	---	7.1	7.1
13	6.6	6.6	---	---	6.8	6.8	7.0	7.0	---	---	7.1	7.1
14	6.6	6.6	---	---	6.8	6.8	7.0	7.0	---	---	7.1	7.1
15	---	---	6.6	6.5	6.8	6.8	7.0	7.0	---	---	7.1	7.1
16	---	---	6.5	6.5	6.8	6.8	7.0	7.0	---	---	7.1	7.1
17	---	---	6.6	6.5	6.8	6.8	7.0	7.0	---	---	7.1	7.1
18	---	---	6.6	6.5	6.9	6.8	7.0	7.0	---	---	7.1	7.1
19	---	---	6.6	6.6	6.9	6.9	7.0	7.0	---	---	7.1	7.0
20	---	---	6.6	6.6	6.9	6.9	7.0	7.0	---	---	7.0	7.0
21	---	---	6.6	6.6	6.9	6.9	7.0	7.0	---	---	7.0	7.0
22	---	---	6.6	6.6	6.9	6.9	7.1	7.0	---	---	7.0	7.0
23	---	---	6.6	6.6	6.9	6.9	7.1	7.0	---	---	7.0	7.0
24	---	---	6.6	6.6	6.9	6.9	7.1	7.1	---	---	7.0	7.0
25	---	---	6.6	6.6	7.0	6.9	7.1	7.1	---	---	7.0	7.0
26	---	---	6.7	6.6	6.9	6.9	7.1	7.1	---	---	7.0	6.9
27	---	---	6.7	6.6	7.0	6.9	7.1	7.1	---	---	7.0	6.9
28	---	---	6.6	6.6	7.0	6.9	7.1	7.1	---	---	6.9	6.9
29	---	---	6.7	6.6	7.0	6.9	7.1	7.1	---	---	6.9	6.9
30	---	---	6.6	6.6	7.0	6.9	7.1	7.1	---	---	6.9	6.9
31	---	---	6.7	6.6	---	---	7.1	7.1	---	---	---	---

PUMP NUMBER 2

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.3	6.2	6.4	6.3							---	---
2	6.4	6.3	6.5	6.4							---	---
3	6.4	6.3	6.5	6.4							---	---
4	6.4	6.3	6.6	6.5							---	---
5	6.5	6.4	6.9	6.5							---	---
6	6.4	6.4	6.8	6.7							---	---
7	6.6	6.2	6.9	6.7							---	---
8	6.6	6.4	6.7	6.6							---	---
9	6.6	6.4	6.9	6.6							---	---
10	6.5	6.0	6.9	6.6							---	---
11	6.4	6.2	6.7	6.6							---	---
12	6.4	6.3	6.7	6.6							---	---
13	6.4	6.3	6.8	6.6							7.6	7.1
14	6.4	6.3	6.8	6.6							7.6	7.1
15	6.4	6.3	6.7	6.6							7.1	7.0
16	6.4	6.3	6.7	6.7							7.5	7.0
17	6.4	6.3	7.2	6.6							7.5	7.0
18	6.4	6.3	6.7	6.7							7.1	7.0
19	6.4	6.3	6.7	6.7							7.4	7.0
20	6.5	6.3	---	---							7.1	7.0
21	6.4	6.3	---	---							7.1	7.0
22	6.3	6.3	---	---							7.1	7.1
23	6.3	6.3	---	---							7.2	7.1
24	6.3	5.9	---	---							7.1	7.0
25	6.0	6.0	---	---							7.0	6.9
26	6.2	6.0	---	---							7.2	6.4
27	6.1	6.1	---	---							7.0	6.5
28	6.1	6.1	---	---							6.9	6.4
29	6.3	6.1	---	---							6.9	6.2
30	6.4	6.3	---	---							6.9	6.9
31	6.4	6.3	---	---							6.9	6.9

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 2

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.9	6.3	---	---	6.8	6.8	6.6	6.6	6.6	6.5	---	---
2	6.9	6.3	---	---	6.8	6.8	6.6	6.6	6.7	6.5	---	---
3	6.9	6.9	---	---	6.8	6.8	6.6	6.6	6.6	6.5	---	---
4	6.9	6.8	---	---	6.8	6.8	6.6	6.6	6.7	6.5	---	---
5	6.9	6.8	---	---	6.8	6.7	6.6	6.6	6.7	6.5	---	---
6	6.9	6.8	---	---	6.8	6.7	6.6	6.6	6.8	6.5	---	---
7	6.9	5.7	---	---	6.8	6.7	6.6	6.6	6.8	6.5	---	---
8	6.8	5.6	---	---	6.8	6.7	6.6	6.6	6.7	6.5	---	---
9	6.8	6.8	---	---	6.8	6.7	6.6	6.6	6.7	6.5	6.7	6.7
10	6.8	6.7	---	---	6.7	6.7	6.6	6.6	---	---	6.8	6.7
11	6.8	6.7	---	---	6.7	6.7	6.6	6.6	---	---	6.7	6.7
12	6.8	6.7	---	---	6.7	6.7	6.6	6.6	---	---	6.7	6.7
13	6.8	5.2	---	---	6.7	6.7	6.6	6.6	---	---	6.7	6.7
14	6.8	6.6	---	---	6.7	6.7	6.6	6.6	---	---	6.7	6.7
15	---	---	6.7	6.6	6.7	6.7	6.6	6.6	---	---	6.7	6.6
16	---	---	6.8	6.6	6.7	6.7	6.6	6.6	---	---	6.7	6.6
17	---	---	6.9	6.6	6.7	6.7	6.6	6.6	---	---	6.6	6.6
18	---	---	6.7	6.5	6.7	6.7	6.6	6.6	---	---	6.7	6.6
19	---	---	6.8	6.6	6.7	6.6	6.6	6.6	---	---	6.6	6.6
20	---	---	6.9	6.6	6.6	6.6	6.7	6.6	---	---	6.6	6.6
21	---	---	6.8	6.7	6.6	6.6	6.6	6.6	---	---	6.6	6.6
22	---	---	6.7	6.6	6.6	6.6	6.6	6.6	---	---	6.6	6.6
23	---	---	6.8	6.6	6.7	6.6	6.6	6.6	---	---	6.6	6.6
24	---	---	6.7	6.7	6.6	6.6	6.6	6.6	---	---	6.6	6.6
25	---	---	6.7	6.7	6.6	6.6	6.7	6.6	---	---	6.6	6.6
26	---	---	6.7	6.7	6.6	6.6	6.6	6.6	---	---	6.6	6.6
27	---	---	6.8	6.7	6.7	6.6	6.6	6.6	---	---	6.6	6.6
28	---	---	6.8	6.8	6.7	6.6	6.6	6.6	---	---	6.6	6.6
29	---	---	6.8	6.7	6.6	6.6	6.6	6.6	---	---	6.7	6.6
30	---	---	6.8	6.7	6.6	6.6	6.6	6.5	---	---	6.6	6.6
31	---	---	6.8	6.8	---	---	6.6	6.5	---	---	---	---

PUMP NUMBER 3

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.5	6.4	6.4	6.4							---	---
2	6.5	6.4	6.5	6.5							---	---
3	6.5	6.5	6.6	6.6							---	---
4	6.7	6.6	6.6	6.5							---	---
5	6.7	6.6	6.9	6.6							---	---
6	6.7	6.6	6.9	6.8							---	---
7	6.6	6.4	6.9	6.9							---	---
8	6.7	6.6	6.9	6.9							---	---
9	6.7	6.6	7.0	6.8							---	---
10	6.6	6.2	7.0	6.9							---	---
11	6.6	6.4	7.0	6.8							---	---
12	6.9	6.4	7.0	6.9							---	---
13	6.9	6.5	7.1	6.9							7.2	7.1
14	6.9	6.6	7.1	7.0							7.6	7.0
15	7.0	6.5	7.1	7.1							7.6	7.1
16	7.0	6.6	7.1	7.0							7.5	7.1
17	7.0	6.9	7.2	7.0							7.5	7.0
18	7.0	6.9	7.1	7.1							7.5	7.1
19	6.9	6.8	7.2	7.0							7.2	7.2
20	6.9	6.8	---	---							7.5	7.1
21	6.9	6.8	---	---							7.2	7.1
22	6.9	6.9	---	---							7.2	7.1
23	6.9	6.8	---	---							7.2	7.1
24	6.9	6.4	---	---							7.2	7.1
25	6.7	6.6	---	---							7.2	7.1
26	6.6	6.5	---	---							7.2	6.6
27	6.6	6.6	---	---							7.3	7.1
28	6.5	6.5	---	---							7.3	6.5
29	6.5	6.3	---	---							7.3	6.3
30	6.4	6.3	---	---							7.3	7.1
31	6.4	6.4	---	---							7.3	7.1

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 3

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.3	6.5	---	---	7.6	6.9	7.7	7.6	7.6	7.5	---	---
2	7.3	7.1	---	---	7.6	7.2	7.7	7.6	7.7	7.6	---	---
3	7.3	7.2	---	---	7.6	7.3	7.8	7.5	7.7	7.6	---	---
4	7.4	7.1	---	---	7.6	7.1	7.9	7.7	7.6	7.5	---	---
5	7.4	7.2	---	---	7.7	7.3	8.0	7.7	7.7	7.5	---	---
6	7.3	6.0	---	---	7.8	7.2	7.9	7.7	7.6	7.5	---	---
7	7.2	5.9	---	---	7.6	7.3	7.9	7.6	7.6	7.5	---	---
8	7.4	5.9	---	---	7.6	7.2	7.8	7.6	7.5	7.5	---	---
9	7.3	7.2	---	---	7.5	7.3	7.8	7.5	7.6	7.5	7.3	7.2
10	7.4	5.6	---	---	7.6	7.3	7.7	7.5	---	---	7.4	7.2
11	7.3	7.3	---	---	7.5	7.3	7.5	7.3	---	---	7.4	7.3
12	7.3	7.2	---	---	7.5	7.3	7.5	7.3	---	---	7.4	7.2
13	7.3	5.4	---	---	7.5	7.3	7.4	7.3	---	---	7.5	7.3
14	7.3	7.2	---	---	7.5	7.3	7.5	7.2	---	---	7.5	7.4
15	---	---	7.7	7.7	7.6	7.4	7.5	7.4	---	---	7.6	7.4
16	---	---	7.7	7.4	7.6	7.3	7.4	7.4	---	---	7.5	7.1
17	---	---	7.6	7.3	7.6	7.3	7.6	7.4	---	---	7.5	7.4
18	---	---	7.6	7.2	7.5	7.4	7.5	7.4	---	---	7.5	7.4
19	---	---	7.2	7.1	7.6	7.4	7.5	7.4	---	---	7.5	7.3
20	---	---	7.1	7.0	7.6	7.4	7.6	7.3	---	---	7.5	7.4
21	---	---	7.1	7.0	7.6	7.4	7.6	7.5	---	---	7.3	7.2
22	---	---	7.0	6.9	7.6	7.4	7.7	7.6	---	---	7.4	7.2
23	---	---	7.0	6.9	7.6	7.4	7.7	7.6	---	---	7.4	7.1
24	---	---	6.9	6.9	7.7	7.4	7.7	7.6	---	---	7.4	7.1
25	---	---	7.0	6.9	7.7	7.6	7.8	7.5	---	---	7.4	7.1
26	---	---	6.9	6.9	7.7	7.5	7.8	7.6	---	---	7.4	7.2
27	---	---	6.9	6.8	7.7	7.5	7.7	7.6	---	---	7.5	7.2
28	---	---	6.9	6.8	7.7	7.5	7.8	7.6	---	---	7.4	7.2
29	---	---	6.9	6.8	7.7	7.5	7.7	7.6	---	---	7.3	7.1
30	---	---	7.2	6.9	7.8	7.5	7.7	7.6	---	---	7.3	7.1
31	---	---	7.3	6.8	---	---	7.6	7.6	---	---	---	---

PUMP NUMBER 4

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.7	6.5										
2	6.5	6.5										
3	6.6	6.5										
4	6.8	6.6										
5	6.8	6.7										
6	6.7	6.6										
7	6.7	6.0										
8	6.8	6.7										
9	6.8	6.7										
10	---	---										
11	---	---										
12	---	---										
13	---	---										
14	---	---										
15	---	---										
16	---	---										
17	---	---										
18	---	---										
19	---	---										
20	---	---										
21	---	---										
22	---	---										
23	---	---										
24	---	---										
25	---	---										
26	---	---										
27	---	---										
28	---	---										
29	---	---										
30	---	---										
31	---	---										

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 4

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	7.3	7.2	7.6	7.4	7.6	7.5	---	---
2			---	---	7.5	7.2	7.9	7.5	7.6	7.5	---	---
3			---	---	7.4	7.3	7.7	7.6	7.6	7.5	---	---
4			---	---	7.4	7.3	7.7	7.6	7.6	7.5	---	---
5			---	---	7.4	7.3	7.7	7.6	7.6	7.5	---	---
6			---	---	7.3	7.3	7.6	7.6	---	---	---	---
7			---	---	7.3	7.2	7.8	7.5	---	---	---	---
8			---	---	7.3	7.2	7.6	7.5	---	---	---	---
9			---	---	7.3	7.2	7.7	7.5	---	---	7.3	7.3
10			---	---	7.3	7.2	7.6	7.4	---	---	7.4	7.3
11			---	---	7.2	7.2	7.5	7.4	---	---	7.4	7.3
12			---	---	7.2	7.1	7.5	7.4	---	---	7.4	7.4
13			---	---	7.3	7.2	7.4	7.3	---	---	7.4	7.3
14			---	---	7.3	7.2	7.4	7.3	---	---	7.5	7.4
15			---	---	7.3	7.2	7.4	7.3	---	---	7.5	7.3
16			---	---	7.3	7.2	7.5	7.4	---	---	7.6	7.4
17			---	---	7.4	7.2	7.6	7.4	---	---	7.5	7.3
18			---	---	7.4	7.3	7.7	7.4	---	---	7.4	7.3
19			---	---	7.4	7.3	7.5	7.4	---	---	7.4	7.3
20			---	---	7.5	7.4	7.6	7.3	---	---	7.4	7.3
21			---	---	7.4	7.4	7.9	7.5	---	---	7.4	7.2
22			---	---	7.6	7.4	7.6	7.6	---	---	7.4	7.3
23			---	---	7.5	7.4	7.7	7.6	---	---	---	---
24			---	---	7.4	7.3	7.7	7.6	---	---	7.2	7.1
25			---	---	7.6	7.4	7.6	7.5	---	---	7.2	7.1
26			---	---	7.5	7.4	7.6	7.6	---	---	7.2	7.1
27			7.2	7.2	7.6	7.4	7.8	7.6	---	---	7.2	7.1
28			7.2	7.1	7.5	7.3	7.7	7.6	---	---	7.2	7.1
29			7.3	7.2	7.7	7.2	7.7	7.6	---	---	7.2	7.1
30			7.4	7.2	7.5	7.4	7.7	7.6	---	---	7.3	7.1
31			7.3	7.2	---	---	7.6	7.6	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.0	16.0	16.0	16.0	16.0	16.0						
2	16.0	15.5	16.0	16.0	16.0	16.0						
3	16.0	16.0	16.0	16.0	16.0	16.0						
4	16.0	16.0	16.0	16.0	16.0	16.0						
5	16.0	16.0	16.0	17.0	16.0	16.5						
6	16.0	16.0	16.0	15.5	14.0	14.5						
7	16.0	16.0	16.0	14.0	13.5	13.5						
8	16.0	16.0	16.0	13.5	13.5	13.5						
9	16.0	16.0	16.0	13.0	13.0	13.0						
10	16.0	16.0	16.0	13.0	12.5	13.0						
11	16.0	16.0	16.0	12.5	12.5	12.5						
12	16.0	15.5	16.0	12.5	12.5	12.5						
13	16.0	16.0	16.0	12.5	12.0	12.5						
14	16.0	16.0	16.0	12.5	12.5	12.5						
15	16.0	16.0	16.0	12.5	12.5	12.5						
16	16.0	16.0	16.0	12.5	12.5	12.5						
17	---	---	---	12.5	12.5	12.5						
18	16.0	16.0	16.0	12.5	12.5	12.5						
19	16.0	16.0	16.0	12.5	12.5	12.5						
20	16.0	16.0	16.0	---	---	---						
21	16.0	16.0	16.0	---	---	---						
22	16.0	16.0	16.0	---	---	---						
23	16.0	16.0	16.0	---	---	---						
24	16.0	16.0	16.0	---	---	---						
25	16.0	16.0	16.0	---	---	---						
26	16.0	16.0	16.0	---	---	---						
27	16.0	16.0	16.0	---	---	---						
28	16.0	16.0	16.0	---	---	---						
29	16.0	16.0	16.0	---	---	---						
30	16.0	16.0	16.0	---	---	---						
31	16.0	16.0	16.0	---	---	---						

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	8.5	8.5	8.5	9.5	9.5	9.5
2				---	---	---	8.5	8.5	8.5	9.5	9.5	9.5
3				---	---	---	9.0	8.5	9.0	9.5	9.5	9.5
4				---	---	---	9.0	9.0	9.0	9.5	9.5	9.5
5				---	---	---	9.0	9.0	9.0	10.0	9.5	10.0
6				---	---	---	9.0	9.0	9.0	10.0	10.0	10.0
7				---	---	---	9.0	9.0	9.0	10.0	10.0	10.0
8				---	---	---	9.5	9.0	9.0	10.0	10.0	10.0
9				---	---	---	9.0	9.0	9.0	10.0	10.0	10.0
10				---	---	---	9.0	9.0	9.0	10.0	10.0	10.0
11				---	---	---	9.0	9.0	9.0	10.0	10.0	10.0
12				---	---	---	9.0	9.0	9.0	10.0	10.0	10.0
13				9.0	7.5	8.5	9.0	9.0	9.0	10.0	10.0	10.0
14				8.5	8.0	8.0	9.0	9.0	9.0	10.5	10.0	10.0
15				8.0	7.5	7.5	9.0	9.0	9.0	10.5	10.0	10.0
16				8.5	8.0	8.0	9.0	9.0	9.0	10.5	10.0	10.5
17				8.5	8.0	8.0	9.0	9.0	9.0	10.5	10.5	10.5
18				8.5	8.0	8.5	9.0	9.0	9.0	10.5	10.5	10.5
19				11.5	8.5	10.0	9.5	9.0	9.0	10.5	10.5	10.5
20				9.5	9.0	9.0	9.5	9.0	9.5	10.5	10.5	10.5
21				9.0	9.0	9.0	9.5	9.5	9.5	10.5	10.5	10.5
22				9.5	9.0	9.0	9.5	9.0	9.5	10.5	10.5	10.5
23				10.0	9.0	9.5	9.5	9.0	9.5	10.5	10.5	10.5
24				9.5	8.5	9.0	9.5	9.0	9.5	10.5	10.5	10.5
25				8.5	8.0	8.5	9.5	9.0	9.5	10.5	10.5	10.5
26				8.5	8.0	8.5	9.5	9.5	9.5	11.0	10.5	10.5
27				8.5	8.5	8.5	9.5	9.5	9.5	11.0	10.5	10.5
28				8.5	8.5	8.5	9.5	9.5	9.5	11.0	10.5	10.5
29				8.5	8.5	8.5	9.5	9.5	9.5	10.5	10.5	10.5
30				8.5	8.5	8.5	9.5	9.5	9.5	11.0	10.5	11.0
31				---	---	---	---	---	---	11.0	11.0	11.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.0	11.0	11.0	12.0	11.5	11.5	12.5	12.0	12.0	---	---	---
2	11.0	10.5	11.0	12.0	11.5	11.5	12.0	12.0	12.0	---	---	---
3	11.0	11.0	11.0	12.0	12.0	12.0	12.5	12.0	12.0	---	---	---
4	11.5	11.0	11.0	12.0	11.5	12.0	12.0	11.5	12.0	---	---	---
5	11.0	11.0	11.0	12.0	11.5	12.0	12.0	12.0	12.0	---	---	---
6	11.0	11.0	11.0	12.0	12.0	12.0	12.5	12.0	12.0	---	---	---
7	11.5	11.0	11.0	12.0	12.0	12.0	12.5	12.0	12.5	---	---	---
8	11.5	11.0	11.5	12.0	12.0	12.0	12.5	12.0	12.5	---	---	---
9	11.5	11.0	11.5	12.0	12.0	12.0	12.5	12.0	12.5	12.5	12.5	12.5
10	11.5	11.0	11.5	12.0	12.0	12.0	---	---	---	12.5	12.5	12.5
11	11.5	11.0	11.5	12.0	12.0	12.0	---	---	---	12.5	12.5	12.5
12	11.5	11.0	11.5	12.0	12.0	12.0	---	---	---	12.5	12.0	12.5
13	11.5	11.0	11.5	12.0	12.0	12.0	---	---	---	12.5	12.0	12.5
14	11.5	11.0	11.5	12.0	12.0	12.0	---	---	---	12.5	12.0	12.5
15	11.5	11.0	11.5	12.0	12.0	12.0	---	---	---	12.5	12.0	12.5
16	11.5	11.5	11.5	12.0	12.0	12.0	---	---	---	12.5	12.5	12.5
17	11.5	11.5	12.5	12.0	12.0	12.0	---	---	---	13.0	12.5	12.5
18	11.5	11.5	11.5	12.0	12.0	12.0	---	---	---	13.0	12.5	12.5
19	11.5	11.5	11.5	12.0	12.0	12.0	---	---	---	13.0	12.5	13.0
20	11.5	11.5	11.5	12.0	12.0	12.0	---	---	---	13.0	12.5	13.0
21	11.5	11.5	11.5	12.0	12.0	12.0	---	---	---	13.0	13.0	13.0
22	11.5	11.5	11.5	12.0	12.0	12.0	---	---	---	13.0	12.5	12.5
23	11.5	11.5	11.5	12.0	12.0	12.0	---	---	---	13.0	13.0	13.0
24	11.5	11.5	11.5	12.0	12.0	12.0	---	---	---	13.0	13.0	13.0
25	11.5	11.0	11.5	12.0	12.0	12.0	---	---	---	13.0	13.0	13.0
26	11.5	11.5	11.5	12.0	12.0	12.0	---	---	---	13.0	12.5	13.0
27	11.5	11.5	11.5	12.5	12.0	12.0	---	---	---	13.0	12.5	13.0
28	12.0	11.5	11.5	12.0	12.0	12.0	---	---	---	13.0	13.0	13.0
29	12.0	11.5	11.5	12.0	12.0	12.0	---	---	---	13.0	13.0	13.0
30	12.0	11.5	11.5	12.0	12.0	12.0	---	---	---	13.0	13.0	13.0
31	---	---	---	12.0	11.5	12.0	---	---	---	---	---	---

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	20.5	21.0	18.0	18.0	18.0						
2	21.0	20.5	21.0	18.0	18.0	18.0						
3	20.5	20.0	20.5	18.0	18.0	18.0						
4	20.5	20.0	20.0	18.0	17.5	18.0						
5	20.5	19.0	20.0	17.5	16.0	17.0						
6	20.0	19.5	19.5	16.0	14.5	15.0						
7	19.5	19.0	19.5	15.5	14.0	14.5						
8	19.5	19.0	19.5	14.0	14.0	14.0						
9	19.5	19.0	19.0	15.0	14.0	14.0						
10	19.0	19.0	19.0	14.5	13.5	14.0						
11	19.0	18.5	19.0	13.5	13.5	13.5						
12	19.0	18.5	19.0	13.5	13.0	13.5						
13	19.0	18.5	19.0	14.0	12.5	13.5						
14	19.0	18.5	19.0	14.0	13.0	13.5						
15	19.0	19.0	19.0	13.5	13.0	13.5						
16	19.0	18.5	19.0	13.5	13.5	13.5						
17	19.0	19.0	19.0	15.5	13.5	14.5						
18	19.0	19.0	19.0	14.0	14.0	14.0						
19	19.0	19.0	19.0	14.0	13.5	14.0						
20	19.5	18.5	19.0	---	---	---						
21	19.5	19.0	19.0	---	---	---						
22	19.0	19.0	19.0	---	---	---						
23	19.0	19.0	19.0	---	---	---						
24	19.0	19.0	19.0	---	---	---						
25	19.0	18.5	19.0	---	---	---						
26	19.5	19.0	19.0	---	---	---						
27	19.0	19.0	19.0	---	---	---						
28	19.0	18.5	19.0	---	---	---						
29	19.0	18.5	19.0	---	---	---						
30	19.0	18.5	18.5	---	---	---						
31	18.5	18.5	18.5	---	---	---						

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	9.0	9.0	9.0	12.5	11.0	11.5
2				---	---	---	9.5	9.0	9.0	12.5	11.0	11.5
3				---	---	---	9.5	9.0	9.0	12.0	11.0	11.5
4				---	---	---	9.5	9.0	9.5	12.0	11.0	11.5
5				---	---	---	10.0	9.0	9.5	12.5	11.5	12.0
6				---	---	---	9.5	9.5	9.5	13.0	11.5	12.0
7				---	---	---	10.0	9.5	9.5	13.0	11.0	12.0
8				---	---	---	10.0	9.5	9.5	12.0	11.5	12.0
9				---	---	---	10.0	9.5	10.0	12.5	11.5	12.0
10				---	---	---	10.0	9.5	9.5	12.5	12.0	12.0
11				---	---	---	10.0	9.5	9.5	13.0	11.5	12.0
12				---	---	---	10.5	9.5	10.0	12.5	11.5	12.0
13				10.0	9.5	9.5	10.0	9.5	10.0	12.5	12.0	12.0
14				10.0	8.5	9.0	10.5	9.5	10.0	13.5	12.0	12.5
15				8.5	8.0	8.5	14.0	10.0	10.5	13.0	11.5	12.5
16				9.5	8.0	8.5	12.0	10.0	10.5	13.0	12.5	13.0
17				9.5	8.5	9.0	10.5	10.0	10.0	13.5	12.5	13.0
18				10.0	9.0	9.5	10.5	10.0	10.0	13.0	12.0	12.5
19				12.0	9.0	11.0	13.5	10.0	11.0	14.0	12.5	13.0
20				11.0	9.5	10.0	11.5	10.0	10.5	13.5	12.5	13.0
21				10.5	9.5	10.0	12.5	10.5	11.0	13.5	13.0	13.0
22				10.0	9.5	9.5	11.5	10.5	11.0	13.5	13.0	13.0
23				11.0	9.5	10.0	11.0	10.5	11.0	13.5	13.0	13.5
24				10.0	9.0	9.5	11.5	10.5	11.0	13.5	13.0	13.5
25				9.5	9.0	9.0	12.0	10.5	11.0	13.5	13.0	13.5
26				13.0	9.0	9.5	13.0	10.5	11.5	13.5	13.0	13.5
27				9.5	9.0	9.0	11.5	11.0	11.0	14.0	13.5	14.0
28				9.0	9.0	9.0	12.0	10.5	11.0	14.5	14.0	14.5
29				9.5	9.0	9.0	12.0	11.0	11.5	14.5	14.0	14.5
30				9.0	9.0	9.0	12.0	11.0	11.5	15.0	14.5	15.0
31				9.0	9.0	9.0	---	---	---	15.5	15.0	15.0

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.5	15.0	15.0	16.0	15.0	16.0	19.0	17.5	18.0	---	---	---
2	15.5	15.0	15.5	17.0	16.0	16.0	19.5	18.0	18.5	---	---	---
3	15.5	15.0	15.0	16.5	16.0	16.0	19.0	18.0	18.5	---	---	---
4	15.5	15.0	15.5	16.5	15.5	16.0	19.0	17.5	18.5	---	---	---
5	15.5	15.0	15.0	16.5	15.5	16.0	19.5	18.0	19.0	---	---	---
6	15.5	14.5	15.0	17.0	15.5	16.5	21.0	17.5	19.0	---	---	---
7	15.5	14.5	15.0	17.0	16.0	16.5	20.5	17.5	19.0	---	---	---
8	16.0	14.5	15.5	17.0	16.0	16.5	21.0	18.5	19.5	---	---	---
9	16.0	15.0	15.5	17.0	16.0	16.5	20.5	19.0	19.5	21.0	20.5	20.5
10	15.5	14.5	15.5	17.5	16.0	16.5	---	---	---	21.0	19.5	20.5
11	16.0	15.0	15.5	17.0	16.0	16.5	---	---	---	21.0	20.0	20.5
12	16.0	15.0	15.5	17.5	16.5	17.0	---	---	---	21.0	20.0	20.5
13	15.5	15.0	15.5	17.0	16.5	17.0	---	---	---	20.5	19.5	20.5
14	16.0	14.5	15.5	18.0	16.5	17.0	---	---	---	20.5	20.0	20.0
15	15.5	15.0	15.5	17.0	16.5	17.0	---	---	---	20.5	20.0	20.5
16	16.0	15.5	15.5	17.5	16.5	17.0	---	---	---	20.5	20.0	20.5
17	16.0	15.0	15.5	17.5	17.0	17.5	---	---	---	21.0	20.0	20.5
18	16.0	15.0	15.5	17.5	17.0	17.5	---	---	---	21.0	20.0	20.5
19	16.0	15.5	15.5	17.5	17.0	17.0	---	---	---	21.0	20.0	20.5
20	16.0	15.5	15.5	18.0	16.5	17.0	---	---	---	21.0	20.0	20.5
21	16.0	15.5	15.5	18.0	17.5	17.5	---	---	---	21.0	20.5	20.5
22	16.0	15.0	16.0	18.0	17.0	17.5	---	---	---	20.5	20.0	20.0
23	16.5	15.0	16.0	18.0	17.0	17.5	---	---	---	21.0	20.5	20.5
24	16.5	15.0	16.0	18.0	17.0	17.5	---	---	---	21.0	20.5	21.0
25	16.0	15.5	15.5	18.5	17.0	18.0	---	---	---	21.0	20.5	21.0
26	16.0	15.5	16.0	18.0	17.5	18.0	---	---	---	21.0	20.0	20.5
27	16.5	15.5	16.0	18.5	17.5	18.0	---	---	---	21.0	20.0	20.5
28	16.5	15.0	16.0	18.5	17.5	18.0	---	---	---	21.0	20.5	21.0
29	16.5	15.5	16.0	18.5	18.0	18.0	---	---	---	21.0	20.5	21.0
30	16.0	16.0	16.0	18.5	18.0	18.5	---	---	---	21.5	20.5	21.0
31	---	---	---	18.5	18.0	18.0	---	---	---	---	---	---

PUMP NUMBER 3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.5	21.5	21.5	18.5	18.5	18.5						
2	21.5	21.0	21.0	18.5	18.5	18.5						
3	21.0	21.0	21.0	18.5	18.0	18.5						
4	22.0	21.0	21.0	18.0	17.5	18.0						
5	21.5	21.0	21.0	17.5	17.0	17.0						
6	20.5	20.5	20.5	16.5	16.0	16.5						
7	20.0	20.0	20.0	16.0	15.5	15.5						
8	20.0	19.5	19.5	15.5	15.0	15.5						
9	19.5	19.5	19.5	15.5	14.5	15.0						
10	19.5	19.5	19.5	15.0	14.5	14.5						
11	20.0	19.5	20.0	15.5	14.5	15.0						
12	21.5	19.5	20.5	15.0	15.0	15.0						
13	21.0	19.5	20.0	15.5	14.5	15.0						
14	21.0	19.5	20.0	16.0	15.0	15.5						
15	21.0	19.5	20.5	16.5	15.5	15.5						
16	20.5	20.0	20.0	16.0	15.5	15.5						
17	21.0	20.0	20.5	16.0	15.5	15.5						
18	21.0	20.0	20.5	16.0	15.5	15.5						
19	21.5	20.0	20.5	16.5	15.0	16.0						
20	21.5	20.0	21.0	---	---	---						
21	21.0	20.5	21.0	---	---	---						
22	21.5	20.5	21.0	---	---	---						
23	20.5	20.5	20.5	---	---	---						
24	20.5	20.5	20.5	---	---	---						
25	20.5	20.5	20.5	---	---	---						
26	21.0	20.0	20.0	---	---	---						
27	20.0	20.0	20.0	---	---	---						
28	20.0	19.5	20.0	---	---	---						
29	19.5	19.0	19.5	---	---	---						
30	19.0	19.0	19.0	---	---	---						
31	18.5	18.5	18.5	---	---	---						

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	17.5	13.0	15.5	17.5	15.5	16.5
2				---	---	---	15.5	13.5	14.5	17.0	15.0	16.5
3				---	---	---	18.5	15.0	16.0	17.5	16.0	17.0
4				---	---	---	19.0	13.5	16.5	20.0	16.5	17.5
5				---	---	---	19.0	16.0	17.5	19.5	17.0	18.5
6				---	---	---	18.5	16.5	18.0	20.5	17.0	18.5
7				---	---	---	19.5	17.0	18.0	19.0	18.0	18.5
8				---	---	---	19.0	17.5	18.0	20.0	17.5	18.5
9				---	---	---	17.0	16.0	16.5	20.5	17.5	19.0
10				---	---	---	16.0	15.5	15.5	21.0	18.5	19.5
11				---	---	---	16.0	15.0	15.5	22.0	18.5	20.0
12				---	---	---	17.5	14.5	15.5	19.5	19.0	19.5
13				11.0	10.0	10.5	16.0	14.5	15.0	22.5	18.0	20.5
14				11.0	10.0	10.5	17.0	14.5	16.0	21.5	19.0	20.0
15				11.5	9.5	10.5	16.5	16.0	16.5	19.0	17.5	18.5
16				13.0	9.5	10.5	16.0	14.5	15.0	19.0	17.0	18.0
17				10.5	9.5	10.5	15.0	14.5	14.5	18.5	17.5	18.0
18				12.5	10.5	11.0	15.5	14.0	14.5	18.5	17.0	18.0
19				12.5	12.0	12.5	16.0	14.0	15.0	19.0	17.0	18.0
20				12.0	11.0	11.5	15.5	15.0	15.5	19.5	17.5	18.5
21				11.5	10.0	10.5	16.0	14.0	15.5	19.5	18.0	19.0
22				12.5	9.5	11.0	15.5	13.5	14.5	19.0	18.5	18.5
23				11.5	10.0	11.0	14.5	14.0	14.0	19.5	18.0	18.5
24				14.0	10.0	11.5	17.0	13.5	14.5	19.0	18.5	19.0
25				14.0	10.0	12.5	16.0	14.0	14.5	19.0	18.0	18.5
26				13.5	11.5	13.0	16.5	14.0	15.0	19.0	18.5	18.5
27				15.0	11.0	12.5	15.5	14.5	15.0	19.0	17.5	18.0
28				12.5	11.5	12.0	19.5	14.0	16.0	19.0	18.0	18.5
29				15.0	12.5	14.0	17.5	15.0	15.5	18.5	18.0	18.0
30				16.5	13.0	14.5	20.5	14.5	17.0	20.0	18.0	19.0
31				17.5	13.0	14.5	---	---	---	20.0	17.5	19.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.5	18.0	19.5	28.5	27.0	27.0	28.0	27.5	28.0	---	---	---
2	21.0	19.5	20.5	28.5	27.0	27.5	28.0	28.0	28.0	---	---	---
3	22.0	19.5	20.5	27.0	26.5	27.0	28.0	28.0	28.0	---	---	---
4	21.5	20.0	20.5	27.0	26.0	26.5	28.0	27.5	27.5	---	---	---
5	21.0	20.0	20.5	27.0	26.5	26.5	27.5	27.5	27.5	---	---	---
6	22.0	20.0	21.0	27.0	26.5	27.0	28.5	27.5	28.0	---	---	---
7	21.5	20.5	21.5	27.0	27.0	27.0	28.0	27.5	27.5	---	---	---
8	22.5	21.0	22.0	27.0	27.0	27.0	27.5	27.5	27.5	---	---	---
9	22.5	20.5	22.0	28.0	26.5	27.5	28.0	27.5	27.5	24.0	23.5	24.0
10	22.5	21.0	22.0	28.0	27.5	27.5	---	---	---	24.0	23.5	24.0
11	27.0	22.0	23.5	28.5	26.5	27.5	---	---	---	25.0	23.5	24.0
12	25.0	21.5	23.5	28.5	26.5	27.5	---	---	---	24.5	24.0	24.0
13	24.0	23.0	23.5	28.0	27.0	27.5	---	---	---	24.0	23.5	24.0
14	24.0	23.5	23.5	27.5	26.5	27.5	---	---	---	24.0	23.5	24.0
15	25.5	23.5	24.0	27.5	26.5	27.0	---	---	---	24.0	24.0	24.0
16	25.5	23.5	24.5	27.5	26.5	27.5	---	---	---	24.0	23.5	24.0
17	26.0	24.0	25.0	28.0	27.5	28.0	---	---	---	24.5	23.5	24.0
18	26.0	25.0	25.5	28.0	27.5	28.0	---	---	---	24.0	24.0	24.0
19	26.0	25.5	26.0	29.0	28.0	28.0	---	---	---	24.0	23.5	23.5
20	26.0	25.0	25.5	29.0	28.0	28.5	---	---	---	24.5	23.5	24.0
21	26.0	25.0	26.0	29.0	28.5	29.0	---	---	---	23.5	23.5	23.5
22	26.5	25.5	26.0	29.0	29.0	29.0	---	---	---	24.0	23.0	23.5
23	27.0	24.5	26.0	29.5	29.0	29.0	---	---	---	24.5	23.5	24.0
24	27.0	24.5	26.0	29.5	29.0	29.5	---	---	---	25.0	23.5	24.0
25	27.0	26.5	26.5	29.5	29.0	29.5	---	---	---	25.5	23.5	24.5
26	27.0	26.0	26.5	29.5	29.5	29.5	---	---	---	24.5	23.5	24.0
27	27.0	26.5	26.5	29.5	29.5	29.5	---	---	---	24.5	24.0	24.5
28	28.0	25.5	27.0	30.0	29.5	29.5	---	---	---	25.0	24.5	24.5
29	27.0	26.5	27.0	29.5	29.5	29.5	---	---	---	25.0	24.0	24.5
30	28.5	26.0	27.5	29.5	29.0	29.0	---	---	---	26.0	24.5	25.0
31	---	---	---	29.0	28.0	28.5	---	---	---	---	---	---

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.5	21.5	22.0									
2	21.5	21.0	21.0									
3	21.5	21.0	21.0									
4	23.0	21.0	21.5									
5	21.5	20.5	21.0									
6	21.0	20.0	20.5									
7	22.0	20.0	20.5									
8	21.5	19.5	20.5									
9	20.5	19.5	20.0									
10	---	---	---									
11	---	---	---									
12	---	---	---									
13	---	---	---									
14	---	---	---									
15	---	---	---									
16	---	---	---									
17	---	---	---									
18	---	---	---									
19	---	---	---									
20	---	---	---									
21	---	---	---									
22	---	---	---									
23	---	---	---									
24	---	---	---									
25	---	---	---									
26	---	---	---									
27	---	---	---									
28	---	---	---									
29	---	---	---									
30	---	---	---									
31	---	---	---									

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1										---	---	---
2										---	---	---
3										---	---	---
4										---	---	---
5										---	---	---
6										---	---	---
7										---	---	---
8										---	---	---
9										---	---	---
10										---	---	---
11										---	---	---
12										---	---	---
13										---	---	---
14										---	---	---
15										---	---	---
16										---	---	---
17										---	---	---
18										---	---	---
19										---	---	---
20										---	---	---
21										---	---	---
22										---	---	---
23										---	---	---
24										---	---	---
25										---	---	---
26										---	---	---
27										22.0	21.5	21.5
28										22.5	21.0	21.5
29										22.0	21.5	21.5
30										24.5	22.0	23.0
31										25.0	22.5	23.5

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.5	23.5	24.5	28.5	27.0	28.0	29.0	28.0	28.5	---	---	---
2	26.5	23.5	25.0	28.0	27.5	27.5	28.5	27.5	28.0	---	---	---
3	25.0	23.0	24.0	27.5	26.5	27.0	28.5	27.0	28.0	---	---	---
4	24.5	24.0	24.0	28.0	26.0	27.0	28.5	27.5	28.0	---	---	---
5	26.0	23.5	25.0	29.0	26.5	27.5	29.5	27.5	28.5	---	---	---
6	27.0	24.5	26.0	29.5	27.0	28.0	---	---	---	---	---	---
7	26.5	25.5	26.0	29.5	27.5	28.5	---	---	---	---	---	---
8	26.5	25.5	26.0	30.5	27.5	29.0	---	---	---	---	---	---
9	28.0	25.5	26.5	29.0	28.0	28.5	---	---	---	25.0	25.0	25.0
10	27.0	26.0	26.5	28.5	27.0	27.5	---	---	---	25.0	24.0	24.5
11	27.5	26.0	26.5	28.5	27.5	27.5	---	---	---	25.0	24.0	24.5
12	26.5	25.0	26.0	28.0	27.0	27.5	---	---	---	25.0	24.0	24.5
13	26.5	25.5	26.0	27.5	27.0	27.0	---	---	---	25.0	23.5	24.0
14	27.5	25.0	26.5	28.5	27.0	28.0	---	---	---	25.5	23.5	24.5
15	27.5	25.0	26.5	28.0	26.5	27.5	---	---	---	25.0	24.0	24.5
16	27.5	25.5	26.5	28.5	27.0	27.5	---	---	---	25.0	24.0	24.0
17	27.5	25.5	26.5	30.5	27.0	28.5	---	---	---	25.0	23.5	24.0
18	26.5	25.0	26.0	29.5	28.0	28.5	---	---	---	24.5	23.5	24.0
19	27.5	25.0	26.5	29.5	28.5	28.5	---	---	---	24.0	23.0	23.5
20	27.5	25.5	26.5	30.5	28.5	29.5	---	---	---	24.5	23.5	23.5
21	27.5	26.0	26.5	30.0	28.5	29.0	---	---	---	24.5	23.5	24.0
22	28.5	26.0	27.0	30.5	28.5	29.5	---	---	---	24.5	23.5	24.0
23	28.0	26.5	27.0	30.0	29.0	29.5	---	---	---	---	---	---
24	27.5	26.5	27.0	31.0	29.0	29.5	---	---	---	24.5	23.0	24.0
25	28.0	25.5	27.0	30.5	29.0	29.5	---	---	---	25.0	24.0	24.0
26	28.5	26.5	27.5	31.0	29.0	30.0	---	---	---	25.5	24.5	24.5
27	27.5	26.5	27.0	30.5	29.0	29.5	---	---	---	25.0	24.0	24.5
28	28.0	25.5	27.0	30.0	29.0	29.5	---	---	---	24.5	24.0	24.5
29	28.5	26.0	27.5	30.0	29.0	29.5	---	---	---	26.0	23.5	24.5
30	28.5	26.5	27.5	29.5	28.5	29.0	---	---	---	25.5	24.5	25.0
31	---	---	---	28.5	28.0	28.5	---	---	---	---	---	---

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	.1	.1	.1	3.3	3.3	3.3						
2	.1	.1	.1	3.7	3.7	3.7						
3	.1	.1	.1	4.1	4.1	4.1						
4	.1	.1	.1	4.5	4.5	4.5						
5	.1	.1	.1	7.4	5.0	6.2						
6	.1	.1	.1	8.4	7.6	8.1						
7	.1	.1	.1	8.5	8.3	8.4						
8	.1	.1	.1	8.5	8.1	8.3						
9	.1	.1	.1	8.4	8.0	8.2						
10	.1	.1	.1	8.3	7.9	8.1						
11	.1	.1	.1	8.3	8.1	8.2						
12	.1	.1	.1	8.3	8.0	8.1						
13	.1	.1	.1	8.0	7.8	7.9						
14	.1	.1	.1	7.7	7.4	7.5						
15	.1	.1	.1	7.4	7.2	7.3						
16	.1	.1	.1	7.1	7.0	7.1						
17	---	---	---	6.9	6.5	6.7						
18	.1	.1	.1	6.7	6.3	6.5						
19	.1	.1	.1	6.4	6.2	6.3						
20	.1	.1	.1	---	---	---						
21	.1	.1	.1	---	---	---						
22	.1	.1	.1	---	---	---						
23	.1	.1	.1	---	---	---						
24	.1	.1	.1	---	---	---						
25	.5	.4	.5	---	---	---						
26	.8	.8	.8	---	---	---						
27	1.2	1.2	1.2	---	---	---						
28	1.7	1.6	1.7	---	---	---						
29	2.1	2.1	2.1	---	---	---						
30	2.5	2.5	2.5	---	---	---						
31	2.9	2.9	2.9	---	---	---						

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	13.2	13.0	13.1	13.8	13.5	13.7
2				---	---	---	13.3	13.1	13.2	13.7	13.4	13.5
3				---	---	---	13.3	13.0	13.2	13.6	13.2	13.4
4				---	---	---	13.2	13.0	13.1	13.4	13.0	13.2
5				---	---	---	13.2	13.0	13.1	13.3	13.0	13.2
6				---	---	---	13.1	13.0	13.0	13.3	13.1	13.2
7				---	---	---	12.9	12.8	12.9	13.4	13.2	13.3
8				---	---	---	12.7	12.6	12.7	13.6	13.3	13.5
9				---	---	---	12.7	12.5	12.6	13.8	13.4	13.5
10				---	---	---	12.9	12.6	12.7	13.6	13.3	13.5
11				---	---	---	13.0	12.8	12.9	13.6	13.3	13.5
12				---	---	---	13.1	12.8	13.0	13.8	13.5	13.7
13				12.3	11.2	11.6	13.3	13.0	13.2	14.1	13.4	13.7
14				11.8	11.5	11.6	13.2	13.0	13.1	13.9	13.3	13.6
15				12.0	11.8	11.9	13.2	13.1	13.2	13.5	13.4	13.4
16				11.8	11.4	11.5	13.4	13.2	13.3	---	---	---
17				11.5	11.1	11.2	13.7	13.4	13.6	---	---	---
18				11.2	10.9	11.0	13.7	13.6	13.7	---	---	---
19				11.1	9.6	10.3	13.7	13.3	13.4	---	---	---
20				11.3	10.9	11.0	13.3	13.2	13.3	---	---	---
21				11.4	11.2	11.3	13.4	13.2	13.3	---	---	---
22				11.6	11.4	11.5	13.5	13.3	13.4	---	---	---
23				11.9	11.6	11.8	13.8	13.5	13.6	---	---	---
24				13.0	12.0	12.6	13.6	13.4	13.5	---	---	---
25				13.5	13.1	13.3	13.5	13.4	13.5	---	---	---
26				13.7	13.5	13.6	13.6	13.4	13.5	---	---	---
27				13.9	13.7	13.8	13.7	13.4	13.6	---	---	---
28				14.1	13.8	14.0	13.8	13.4	13.6	---	---	---
29				14.3	14.2	14.2	13.7	13.6	13.7	---	---	---
30				14.2	14.1	14.1	13.8	13.3	13.6	---	---	---
31				---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	.3	.3	.3	.2	.2	.2	---	---	---
2	---	---	---	.3	.3	.3	.2	.2	.2	---	---	---
3	.3	.3	.3	.3	.3	.3	.2	.2	.2	---	---	---
4	.3	.3	.3	.3	.3	.3	.2	.2	.2	---	---	---
5	.3	.3	.3	.3	.3	.3	.2	.2	.2	---	---	---
6	.3	.3	.3	.3	.3	.3	.2	.2	.2	---	---	---
7	.3	.3	.3	.3	.3	.3	.2	.2	.2	---	---	---
8	.3	.3	.3	.3	.3	.3	.2	.2	.2	---	---	---
9	.3	.3	.3	.3	.3	.3	.2	.2	.2	.4	.4	.4
10	.3	.3	.3	.3	.3	.3	---	---	---	.4	.4	.4
11	.3	.3	.3	.3	.3	.3	---	---	---	.4	.4	.4
12	.3	.3	.3	.2	.2	.2	---	---	---	.4	.4	.4
13	.3	.3	.3	.3	.2	.2	---	---	---	.4	.4	.4
14	.3	.3	.3	.2	.2	.2	---	---	---	.4	.4	.4
15	.3	.3	.3	.2	.2	.2	---	---	---	.4	.4	.4
16	.3	.3	.3	.2	.2	.2	---	---	---	.4	.4	.4
17	.4	.3	.3	.2	.2	.2	---	---	---	.4	.3	.3
18	.4	.4	.4	.2	.2	.2	---	---	---	.3	.3	.3
19	.4	.4	.4	.2	.2	.2	---	---	---	.3	.3	.3
20	.4	.4	.4	.2	.2	.2	---	---	---	.3	.3	.3
21	.4	.4	.4	.2	.2	.2	---	--	---	.3	.3	.3
22	.4	.4	.4	.2	.2	.2	---	---	---	.3	.3	.3
23	.3	.3	.3	.2	.2	.2	---	---	---	.3	.2	.2
24	.3	.3	.3	.2	.2	.2	---	---	---	.2	.2	.2
25	.3	.3	.3	.2	.2	.2	---	---	---	.2	.2	.2
26	.3	.3	.3	.2	.2	.2	---	---	---	.2	.2	.2
27	.3	.3	.3	.2	.2	.2	---	---	---	.2	.2	.2
28	.3	.3	.3	.2	.2	.2	---	---	---	.2	.2	.2
29	.3	.3	.3	.2	.2	.2	---	---	---	.2	.2	.2
30	.3	.3	.3	.2	.2	.2	---	---	---	.2	.2	.2
31	---	---	---	.2	.2	.2	---	---	---	---	---	---

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	.8	.0	.4	6.0	5.5	5.8						
2	2.4	.0	1.2	6.4	6.1	6.3						
3	1.6	.0	.8	6.5	6.2	6.3						
4	3.2	.0	.8	6.7	6.4	6.6						
5	3.7	.0	1.9	7.1	7.0	7.1						
6	1.9	.0	.6	8.1	7.2	7.6						
7	3.7	.0	1.1	8.2	7.9	8.1						
8	3.7	1.3	3.0	8.2	7.9	8.0						
9	3.8	1.7	2.9	8.2	7.8	8.0						
10	4.8	1.8	3.5	8.3	7.7	8.0						
11	6.4	4.1	5.2	7.8	7.6	7.7						
12	6.3	1.9	4.5	7.8	7.5	7.6						
13	5.6	3.4	4.8	7.8	7.5	7.6						
14	5.5	4.0	4.7	7.4	7.2	7.3						
15	5.3	3.4	4.2	7.3	7.2	7.3						
16	3.7	2.1	2.9	7.2	6.9	7.1						
17	2.7	2.1	2.4	9.3	6.8	7.6						
18	2.8	1.6	2.4	7.1	6.9	7.0						
19	3.4	2.8	3.2	6.9	6.4	6.7						
20	3.3	2.5	3.0	---	---	---						
21	3.0	2.6	2.8	---	---	---						
22	2.8	2.8	2.8	---	---	---						
23	2.9	2.6	2.8	---	---	---						
24	3.0	2.9	3.0	---	---	---						
25	3.3	1.2	2.8	---	---	---						
26	4.9	1.7	3.4	---	---	---						
27	4.0	2.0	3.0	---	---	---						
28	4.1	1.9	2.9	---	---	---						
29	5.9	2.3	3.5	---	---	---						
30	6.8	5.6	6.3	---	---	---						
31	6.4	5.4	5.9	---	---	---						

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	13.1	12.4	12.9	13.7	12.7	13.1
2				---	---	---	12.9	12.6	12.8	13.4	12.4	13.0
3				---	---	---	13.0	12.8	12.9	13.2	12.7	12.9
4				---	---	---	13.0	12.6	12.9	13.2	12.6	12.9
5				---	---	---	12.9	12.4	12.7	13.1	12.4	12.8
6				---	---	---	12.9	12.5	12.7	13.1	12.3	12.8
7				---	---	---	12.8	12.3	12.6	13.4	12.3	12.9
8				---	---	---	12.9	12.6	12.7	13.4	13.0	13.2
9				---	---	---	13.0	12.6	12.8	13.7	12.9	13.2
10				---	---	---	13.2	12.7	13.0	13.4	13.0	13.2
11				---	---	---	13.4	12.9	13.2	13.6	13.0	13.3
12				---	---	---	13.5	12.4	13.2	13.8	13.1	13.5
13				11.2	10.9	11.1	13.5	13.0	13.3	13.5	13.3	13.4
14				11.3	10.7	11.0	13.6	13.0	13.3	13.6	12.7	13.2
15				11.8	11.4	11.6	13.6	10.9	13.0	13.4	12.8	13.1
16				11.5	10.8	11.2	13.6	12.3	13.0	---	---	---
17				11.1	10.5	10.9	13.6	13.2	13.4	---	---	---
18				11.0	10.4	10.7	13.6	13.4	13.5	---	---	---
19				11.0	9.5	9.8	13.7	11.3	13.1	---	---	---
20				10.5	10.1	10.4	13.4	12.5	13.1	---	---	---
21				11.0	10.4	10.8	13.4	12.0	12.9	---	---	---
22				11.5	11.1	11.4	13.4	12.5	13.0	---	---	---
23				11.9	11.1	11.6	13.3	12.8	13.1	---	---	---
24				12.8	11.8	12.4	13.3	12.8	13.1	---	---	---
25				13.5	12.8	13.1	13.4	12.5	13.0	---	---	---
26				13.6	11.2	13.0	13.3	11.9	12.7	---	---	---
27				13.7	13.0	13.5	13.2	12.5	12.9	---	---	---
28				13.8	13.8	13.6	13.7	12.6	13.1	---	---	---
29				13.9	13.6	13.8	13.4	12.7	13.1	---	---	---
30				14.0	13.6	13.8	13.3	13.0	13.1	---	---	---
31				13.7	13.2	13.5	---	---	---	---	---	---

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03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	1.9	.3	1.3	.9	.4	.6	---	---	---
2	---	---	---	2.5	.9	1.6	.9	.4	.6	---	---	---
3	5.0	4.9	5.0	1.9	.7	1.3	.5	.4	.4	---	---	---
4	5.3	4.6	5.0	1.8	.4	1.2	.7	.4	.5	---	---	---
5	5.0	4.3	4.6	1.5	.4	1.1	.5	.4	.4	---	---	---
6	5.4	3.5	4.3	1.7	.3	.9	1.9	.4	.7	---	---	---
7	4.9	3.4	4.3	1.5	.5	1.0	1.2	.3	.5	---	---	---
8	4.9	2.6	4.2	1.7	.6	1.4	1.5	.3	.6	---	---	---
9	4.7	3.6	4.1	1.3	.4	1.0	.8	.3	.4	4.5	3.4	3.6
10	4.4	3.1	3.9	2.0	.3	1.0	---	---	---	4.1	2.2	3.1
11	4.4	3.3	3.8	1.1	.4	.7	---	---	---	3.2	1.9	2.7
12	4.6	3.2	4.0	1.8	.6	1.1	---	---	---	3.2	1.1	2.1
13	4.1	3.3	3.9	1.3	.4	.8	---	---	---	2.4	.7	2.0
14	4.2	3.2	3.5	2.4	.4	1.0	---	---	---	2.3	.9	1.5
15	3.7	2.8	3.3	1.1	.6	.8	---	---	---	2.0	.6	1.5
16	3.8	2.8	3.4	.9	.5	.6	---	---	---	1.7	.7	1.2
17	3.3	2.1	2.8	1.2	.4	.9	---	---	---	1.4	.3	.8
18	3.2	2.0	2.7	1.2	.6	.9	---	---	---	1.2	.3	.6
19	2.9	2.3	2.5	1.0	.6	.8	---	---	---	.9	.2	.5
20	2.5	1.9	2.3	1.4	.5	.8	---	---	---	.7	.2	.4
21	2.4	1.8	2.2	1.1	.6	.8	---	---	---	.6	.2	.3
22	2.7	1.4	2.2	1.0	.5	.8	---	---	---	.3	.2	.2
23	3.1	1.1	2.1	1.0	.5	.8	---	---	---	.2	.2	.2
24	3.0	1.2	1.8	1.0	.5	.8	---	---	---	.3	.2	.2
25	2.3	1.2	1.7	1.4	.4	.8	---	---	---	.2	.2	.2
26	2.8	1.4	1.9	.7	.5	.6	---	---	---	.2	.1	.2
27	3.1	1.1	1.7	.9	.4	.6	---	---	---	.2	.1	.1
28	2.6	.5	1.5	.8	.4	.5	---	---	---	.1	.1	.1
29	1.9	1.0	1.5	.6	.4	.5	---	---	---	.1	.1	1
30	1.6	.9	1.2	.6	.3	.5	---	---	---	.2	.1	.1
31	---	---	---	.3	.2	.3	---	---	---	---	---	---

PUMP NUMBER 3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.4	6.1	6.2	6.1	5.8	5.9						
2	6.4	5.9	6.2	6.6	6.3	6.5						
3	6.5	6.0	6.2	6.8	6.4	6.6						
4	7.0	6.2	6.7	6.8	6.6	6.7						
5	7.2	6.6	7.0	7.1	7.1	7.1						
6	6.8	6.5	6.7	7.7	7.1	7.4						
7	6.7	6.4	6.5	7.9	7.5	7.7						
8	6.8	6.4	6.6	8.1	7.8	8.0						
9	6.9	6.6	6.8	8.4	8.0	8.2						
10	6.8	6.7	6.8	8.4	8.2	8.4						
11	7.9	6.9	7.1	8.5	8.1	8.3						
12	8.5	6.5	7.4	8.5	8.2	8.4						
13	8.7	6.6	7.6	8.7	8.2	8.5						
14	8.3	7.1	7.6	9.0	8.5	8.8						
15	7.7	6.3	7.0	9.1	8.8	8.9						
16	---	---	---	9.1	8.6	8.8						
17	---	---	---	9.2	8.8	9.0						
18	---	---	---	9.3	8.8	9.0						
19	---	---	---	9.2	8.5	8.9						
20	---	---	---	---	---	---						
21	---	---	---	---	---	---						
22	9.6	9.5	9.5	---	---	---						
23	9.3	9.2	9.3	---	---	---						
24	9.2	9.1	9.1	---	---	---						
25	9.4	8.9	9.2	---	---	---						
26	9.2	8.6	8.9	---	---	---						
27	9.6	9.2	9.4	---	---	---						
28	9.3	8.9	9.1	---	---	---						
29	8.8	7.0	7.8	---	---	---						
30	6.9	6.2	6.5	---	---	---						
31	6.5	5.8	6.1	---	---	---						

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	10.6	8.4	9.4	11.0	10.1	10.6
2				---	---	---	10.3	9.3	9.7	11.1	10.2	10.5
3				---	---	---	9.6	9.1	9.3	10.6	9.9	10.3
4				---	---	---	10.4	8.3	9.2	10.4	9.2	9.9
5				---	---	---	9.1	8.1	8.6	10.1	9.2	9.6
6				---	---	---	9.2	8.2	8.5	10.2	9.0	9.6
7				---	---	---	8.9	8.0	8.4	9.8	9.4	9.7
8				---	---	---	8.6	8.0	8.3	10.4	9.3	9.7
9				---	---	---	9.0	8.7	8.8	10.2	9.0	9.6
10				---	---	---	9.4	9.1	9.2	9.8	8.9	9.4
11				---	---	---	9.6	9.3	9.4	10.0	8.7	9.4
12				---	---	---	10.0	8.9	9.7	10.0	9.4	9.7
13				10.7	10.5	10.6	9.9	9.4	9.8	10.2	8.7	9.4
14				10.5	10.4	10.5	10.0	9.1	9.6	10.1	8.9	9.7
15				10.7	9.9	10.2	9.9	9.4	9.7	10.4	9.8	10.1
16				10.7	8.9	10.1	10.6	9.8	10.2	---	---	---
17				10.7	9.8	10.1	10.8	10.3	10.6	---	---	---
18				10.0	9.1	9.6	11.0	10.4	10.8	---	---	---
19				9.3	9.1	9.2	11.0	10.0	10.5	---	---	---
20				9.9	9.5	9.7	10.5	10.1	10.3	---	---	---
21				10.7	10.0	10.3	11.0	10.0	10.3	---	---	---
22				11.1	9.9	10.6	11.2	10.3	10.7	---	---	---
23				11.3	10.6	10.9	11.3	10.9	11.1	---	---	---
24				11.7	9.9	11.0	11.3	10.0	11.0	---	---	---
25				11.9	10.3	10.9	11.3	10.4	11.1	---	---	---
26				11.4	10.5	10.8	11.2	10.2	10.8	---	---	---
27				12.0	10.2	11.2	11.2	10.7	11.0	---	---	---
28				11.7	11.2	11.4	11.4	9.2	10.5	---	---	---
29				11.3	10.3	10.8	11.0	9.9	10.6	---	---	---
30				11.3	9.9	10.6	11.3	8.9	10.2	---	---	---
31				10.9	8.9	10.1	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	8.8	8.1	8.4	7.2	7.0	7.1	---	---	---
2	---	---	---	8.4	8.1	8.2	7.4	7.0	7.3	---	---	---
3	10.0	9.2	9.6	9.0	8.1	8.5	7.8	7.2	7.6	---	---	---
4	10.3	8.7	9.7	8.2	7.8	8.1	7.7	7.4	7.6	---	---	---
5	10.2	9.4	9.8	8.6	7.9	8.2	8.0	7.6	7.8	---	---	---
6	10.4	8.8	9.7	8.4	7.9	8.1	8.0	7.6	7.7	---	---	---
7	10.1	9.3	9.8	8.3	7.8	8.0	8.1	7.7	7.9	---	---	---
8	9.9	9.0	9.6	8.3	7.9	8.2	8.0	7.7	7.9	---	---	---
9	9.7	9.0	9.6	8.2	7.6	8.0	7.9	7.7	7.8	7.6	7.1	7.4
10	9.9	9.2	9.7	8.1	7.6	7.8	---	---	---	7.9	7.1	7.4
11	9.7	7.5	9.0	8.2	7.4	7.7	---	---	---	7.8	7.4	7.6
12	9.6	8.6	9.2	7.5	7.4	7.4	---	---	---	7.8	7.1	7.5
13	9.6	8.9	9.3	7.3	6.3	7.1	---	---	---	8.0	7.7	7.8
14	9.5	8.9	9.2	7.6	7.2	7.4	---	---	---	8.0	7.8	7.9
15	9.6	8.5	9.2	7.6	7.3	7.4	---	---	---	8.1	7.7	7.9
16	9.7	8.4	9.0	7.7	7.4	7.5	---	---	---	7.9	6.9	7.5
17	8.9	8.1	8.6	7.8	7.3	7.6	---	---	---	7.7	7.3	7.6
18	7.9	7.2	7.4	7.8	7.3	7.6	---	---	---	7.5	7.2	7.3
19	7.4	7.1	7.2	7.9	7.6	7.8	---	---	---	7.2	6.7	7.0
20	8.2	7.3	7.6	7.9	7.6	7.8	---	---	---	6.9	6.5	6.8
21	8.1	7.3	7.7	8.0	7.8	7.9	---	---	---	6.6	6.2	6.5
22	8.1	7.5	7.8	8.1	7.9	8.0	---	---	---	6.6	6.0	6.4
23	8.8	7.5	7.9	8.3	7.9	8.1	---	---	---	6.3	6.0	6.1
24	9.1	7.4	8.1	8.2	7.9	8.0	---	---	---	6.3	5.8	6.1
25	8.5	7.7	8.0	8.5	7.9	8.1	---	---	---	6.2	5.7	6.1
26	8.6	7.8	8.0	8.3	7.1	8.2	---	---	---	6.2	5.9	6.1
27	8.7	8.0	8.2	8.4	7.9	8.2	---	---	---	6.3	5.8	6.1
28	9.0	7.9	8.2	8.1	7.8	8.0	---	---	---	6.2	6.0	6.1
29	8.6	8.1	8.3	8.4	7.9	8.1	---	---	---	6.1	5.7	6.0
30	9.2	8.1	8.3	7.1	6.9	7.0	---	---	---	6.1	5.8	6.0
31	---	---	---	7.3	7.1	7.2	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.4	6.3	6.9									
2	6.4	6.0	6.2									
3	6.6	6.3	6.5									
4	7.2	6.8	6.9									
5	7.2	6.9	7.1									
6	6.9	6.5	6.7									
7	6.9	6.3	6.6									
8	6.9	6.6	6.8									
9	6.7	6.1	6.5									
10	---	---	---									
11	---	---	---									
12	---	---	---									
13	---	---	---									
14	---	---	---									
15	---	---	---									
16	---	---	---									
17	---	---	---									
18	---	---	---									
19	---	---	---									
20	---	---	---									
21	---	---	---									
22	---	---	---									
23	---	---	---									
24	---	---	---									
25	---	---	---									
26	---	---	---									
27	---	---	---									
28	---	---	---									
29	---	---	---									
30	---	---	---									
31	---	---	---									

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
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25												
26												
27												
28												
29												
30												
31												

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
PUMP NUMBER 4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.4	7.0	7.3	7.3	7.1	7.2	---	---	---
2	---	---	---	7.4	6.8	7.1	7.5	7.2	7.3	---	---	---
3	8.6	8.2	8.4	7.4	7.2	7.3	7.6	7.3	7.5	---	---	---
4	8.2	7.9	8.1	7.5	7.3	7.4	7.6	7.4	7.5	---	---	---
5	8.1	7.9	8.0	7.3	7.2	7.3	7.5	7.5	7.5	---	---	---
6	7.9	7.6	7.8	7.1	6.7	7.0	---	---	---	---	---	---
7	7.5	7.2	7.3	7.3	6.8	7.0	---	---	---	---	---	---
8	7.4	7.1	7.2	7.0	6.7	6.9	---	---	---	---	---	---
9	7.3	7.0	7.1	7.2	6.8	7.0	---	---	---	7.3	7.3	7.3
10	7.1	7.0	7.0	7.1	6.9	7.0	---	---	---	7.6	7.3	7.4
11	7.0	6.8	6.9	7.1	6.7	6.9	---	---	---	7.4	7.3	7.4
12	6.8	6.5	6.7	6.8	6.6	6.7	---	---	---	7.6	7.4	7.5
13	7.2	6.7	6.9	6.6	6.4	6.5	---	---	---	7.6	7.3	7.5
14	7.2	6.9	7.0	6.7	6.5	6.6	---	---	---	7.7	7.5	7.6
15	7.1	7.0	7.0	6.9	6.3	6.7	---	---	---	7.7	7.2	7.5
16	7.1	6.7	6.9	7.1	6.9	7.0	---	---	---	7.9	7.5	7.6
17	7.0	6.0	6.5	7.2	6.7	7.0	---	---	---	7.6	7.0	7.3
18	6.7	6.3	6.5	7.4	6.7	7.0	---	---	---	7.2	6.8	7.0
19	6.4	6.2	6.3	7.2	6.9	7.0	---	---	---	7.0	6.6	6.8
20	6.8	6.6	6.7	7.3	6.9	7.2	---	---	---	6.8	6.5	6.6
21	6.8	6.5	6.7	8.0	7.2	7.4	---	---	---	6.7	6.3	6.5
22	6.9	6.6	6.7	7.5	7.3	7.4	---	---	---	6.8	6.2	6.4
23	6.8	6.6	6.7	7.5	7.3	7.4	---	---	---	---	---	---
24	6.7	6.5	6.6	7.5	7.3	7.4	---	---	---	5.9	5.7	5.8
25	7.1	6.8	7.0	7.4	7.0	7.2	---	---	---	5.9	5.8	5.8
26	7.2	6.9	7.0	7.3	6.9	7.1	---	---	---	5.9	5.7	5.8
27	7.3	7.0	7.2	7.5	7.0	7.2	---	---	---	5.8	5.4	5.7
28	7.1	6.8	7.0	7.3	7.0	7.2	---	---	---	5.8	5.4	5.7
29	7.7	6.7	7.2	7.2	6.8	7.1	---	---	---	5.8	5.4	5.7
30	7.4	7.1	7.2	7.0	6.9	7.0	---	---	---	5.9	5.8	5.9
31	---	---	---	7.3	7.1	7.2	---	---	---	---	---	---

03400800 MARTINS FORK NEAR SMITH, KY

LOCATION.--Lat 36°45'08", long 83°15'27", Harlan County, Hydrologic Unit 05130101, on left bank 150 ft downstream from State Highway 987 bridge, 0.3 mi downstream from Martins Fork Dam, 0.7 mi downstream from Crane Creek, 1.0 mi north of Smith, and at mile 15.3.

DRAINAGE AREA.--55.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1968-71, and annual maximums, water years 1968-70. April 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,259.00 ft above National Geodetic Vertical Datum of 1929. July 25, 1967 to Apr. 9, 1971, crest-stage gage at site 30 ft downstream at same datum, and Apr. 10, 1971 to Sept. 30, 1977, water-stage recorder at site 0.8 mi downstream at same datum.

REMARKS.--No estimated daily discharges. Records goud. Flow regulated by Martins Fork Dam (station 03400798) beginning January 1979.

AVERAGE DISCHARGE.--15 years, 121 ft³/s, 29.45 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft³/s, Apr. 4, 1977, gage height, 24.24 ft, from rating curve extended above 250 ft³/s on basis of contracted-opening measurement of peak flow; minimum, 0.80 ft³/s, Sept. 5, 6, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 668 ft³/s, Nov. 20, gage height, 11.87 ft; minimum daily, 9.3 ft³/s, May 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	44	447	18	16	289	14	12	148	11	11	10
2	14	80	343	46	16	284	17	12	75	11	11	11
3	14	79	140	83	42	258	18	12	11	11	11	72
4	14	78	140	83	161	212	18	12	11	11	11	124
5	14	80	139	83	223	209	18	11	15	11	11	107
6	14	123	87	83	233	207	18	11	18	11	11	75
7	20	196	55	83	260	187	18	11	18	11	11	74
8	35	189	55	64	263	152	17	12	18	11	11	51
9	35	182	55	36	264	150	15	12	29	11	11	20
10	35	141	53	36	264	149	11	12	42	11	11	20
11	35	34	53	36	260	118	11	12	44	12	11	20
12	35	34	53	36	235	76	10	12	44	11	10	21
13	35	34	53	36	195	90	10	11	32	12	10	21
14	35	34	53	25	164	127	10	9.3	15	11	10	21
15	35	31	53	15	125	77	10	56	15	11	10	21
16	35	25	53	15	125	79	10	116	13	11	10	21
17	35	26	53	15	130	114	10	43	12	11	10	21
18	35	26	53	15	229	186	10	43	12	11	9.9	21
19	35	26	53	15	350	188	10	43	12	11	10	17
20	35	137	53	15	453	186	10	89	12	11	10	13
21	35	69	53	42	568	186	11	68	11	11	10	13
22	35	69	53	84	557	186	10	20	11	11	10	26
23	35	69	53	84	544	184	9.5	34	11	11	10	47
24	34	69	53	84	436	97	11	49	11	11	10	49
25	34	96	53	84	307	13	10	49	11	11	10	49
26	34	147	41	84	303	13	11	49	11	11	10	31
27	34	147	18	84	299	13	11	100	11	11	11	14
28	33	149	18	84	294	13	11	160	12	11	10	14
29	28	285	18	56	---	13	12	186	12	11	10	33
30	28	463	18	16	---	13	12	169	11	11	10	60
31	28	---	18	16	---	13	---	150	---	11	10	---
TOTAL	916	3162	2440	1556	7316	4082	373.5	1585.3	708	343	321.9	1097
MEAN	29.5	105	78.7	50.2	261	132	12.4	51.1	23.6	11.1	10.4	36.6
MAX	35	463	447	84	568	289	18	186	148	12	11	124
MIN	13	25	18	15	16	13	9.5	9.3	11	11	9.9	10
CFSM	.53	1.88	1.41	.90	4.68	2.37	.22	.92	.42	.20	.19	.66
IN	.61	2.11	1.63	1.04	4.88	2.72	.25	1.06	.47	.23	.21	.73

CAL YR 1985 TOTAL 25199.9 MEAN 69.0 MAX 463 MIN 9.4 CFSM 1.24 IN 16.80
WTR YR 1986 TOTAL 23900.7 MEAN 65.5 MAX 568 MIN 9.3 CFSM 1.17 IN 15.93

03400800 MARTINS FORK NEAR SMITH, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1971 to current year.
pH: December 1979 to current year.
WATER TEMPERATURES: October 1971 to current year.
DISSOLVED OXYGEN: December 1979 to current year.
INSTRUMENTATION.--Water-quality monitor since October 1971.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (Water years 1972-77, 1980 to current year): Maximum, 561 microsiemens, Feb. 12, 1972; minimum, 49 microsiemens, Feb. 26, 1985.
pH: Maximum, 8.2 units, July 2, 1980; minimum, 6.2 units, Jan. 12, 1980, May 17, 1984.
WATER TEMPERATURES: Maximum, 32.5°C, Aug. 6, 1982; minimum, 0.0°C, on many days during winter months.
DISSOLVED OXYGEN: Maximum, 15.6 mg/L, Jan. 20, 21, 1985; minimum, 4.8 mg/L, Aug. 23, 1982.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 231 microsiemens, Aug. 15-17, minimum, 126 microsiemens, Nov. 10.
pH: Maximum, 7.9 units, Dec. 26, 27, minimum, 6.6 units, Sept. 3.
TEMPERATURE: Maximum, 28.5°C, July 27 and Aug. 16; minimum, 2.0°C, Dec. 26-30.
DISSOLVED OXYGEN: Maximum, 13.6 mg/L, Feb. 4, minimum, 6.3 mg/L, Aug. 16, Sept. 2, 3, and 26.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	168	164	166	181	180	180	---	---	---	192	188	189
2	169	165	167	183	181	182	---	---	---	194	182	189
3	172	165	169	185	183	183	---	---	---	186	182	184
4	178	169	173	187	180	182	---	---	---	184	181	183
5	173	169	171	182	170	180	---	---	---	184	175	179
6	173	167	169	169	142	154	---	---	---	183	175	179
7	175	166	170	153	142	146	---	---	---	180	175	178
8	172	169	170	142	130	136	---	---	---	188	178	183
9	173	168	170	146	129	136	---	---	---	189	180	184
10	170	167	168	151	126	138	---	---	---	188	180	185
11	172	168	169	149	133	142	---	---	---	191	186	189
12	173	168	170	143	140	141	---	---	---	191	182	188
13	173	169	170	156	142	148	---	---	---	182	179	180
14	172	169	170	161	148	154	---	---	---	182	180	181
15	172	170	171	160	142	153	---	---	---	188	180	184
16	174	169	171	169	143	151	---	---	---	194	189	192
17	173	169	171	162	151	154	---	---	---	197	191	194
18	174	169	172	161	155	157	---	---	---	200	194	197
19	175	170	172	165	155	160	---	---	---	224	199	208
20	176	171	173	---	---	---	---	---	---	199	178	187
21	174	172	173	---	---	---	---	---	---	203	179	188
22	175	172	173	---	---	---	---	---	---	181	173	176
23	173	172	173	---	---	---	178	177	178	181	175	179
24	173	172	173	---	---	---	178	175	177	179	175	177
25	177	173	175	---	---	---	178	175	176	176	171	173
26	177	173	175	---	---	---	178	174	176	174	170	172
27	178	175	176	---	---	---	179	175	176	169	157	164
28	180	177	178	---	---	---	182	179	180	169	156	162
29	179	176	177	---	---	---	182	178	179	187	169	176
30	180	178	179	---	---	---	182	179	180	195	190	192
31	181	179	180	---	---	---	194	180	187	191	188	190

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CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	199	190	195	140	137	139	161	156	158	173	170	171
2	198	191	194	143	137	140	159	155	158	173	170	171
3	212	174	192	141	136	138	161	156	158	173	169	171
4	176	153	165	140	137	139	160	157	158	173	170	171
5	164	140	153	140	137	138	161	156	158	174	169	171
6	166	131	155	140	137	138	161	156	159	172	169	170
7	148	134	141	140	137	138	161	156	159	172	168	169
8	177	147	166	142	138	140	161	156	159	170	166	168
9	199	170	181	147	141	144	163	157	160	171	168	169
10	201	170	183	145	142	144	161	159	160	171	167	169
11	182	162	174	148	144	146	162	159	160	170	167	169
12	177	154	164	149	146	148	161	159	160	172	168	170
13	164	152	157	151	146	149	163	159	161	170	166	168
14	160	152	156	153	147	150	162	158	159	174	166	168
15	168	159	164	152	150	151	161	158	160	170	166	168
16	167	155	163	160	150	153	163	157	160	169	164	167
17	164	154	161	167	157	161	162	159	160	166	160	164
18	199	145	170	165	156	161	163	159	160	166	159	163
19	158	148	150	164	139	149	162	159	160	164	158	161
20	165	144	155	160	151	154	164	159	162	162	156	160
21	172	142	161	154	149	151	165	161	163	161	157	159
22	173	149	159	154	146	149	165	161	163	162	158	160
23	169	143	156	152	147	150	164	161	163	161	155	159
24	164	134	151	161	151	156	166	160	162	159	156	157
25	169	145	158	164	160	162	163	161	162	160	155	157
26	147	136	140	163	160	162	165	161	163	157	153	155
27	145	133	139	162	160	161	168	163	166	161	147	154
28	145	139	142	162	158	160	177	163	169	156	150	153
29	---	---	---	161	158	159	173	170	171	156	151	153
30	---	---	---	160	157	159	174	171	172	154	149	152
31	---	---	---	162	157	159	---	---	---	156	147	151

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	154	146	151	168	163	166	185	181	183	214	181	207
2	158	149	155	169	166	168	184	182	183	215	202	210
3	160	150	155	170	165	168	185	181	183	210	204	207
4	159	154	156	173	168	171	186	180	182	215	207	209
5	159	154	157	172	166	170	184	180	182	213	207	209
6	161	152	156	171	165	169	184	181	183	214	208	212
7	161	154	157	169	166	167	186	182	183	216	210	212
8	163	155	158	171	168	169	186	184	185	216	202	209
9	161	155	157	171	163	168	196	185	190	208	200	204
10	161	154	157	174	168	170	203	186	193	206	198	201
11	163	151	158	177	167	170	198	176	191	205	198	201
12	160	152	157	174	170	172	198	189	193	203	183	199
13	159	154	156	183	169	175	214	195	203	203	197	200
14	159	155	158	176	170	173	229	213	221	205	198	201
15	159	153	157	173	170	172	231	226	228	203	198	200
16	161	155	158	172	169	171	231	226	229	202	193	197
17	159	155	157	174	170	172	231	219	222	199	194	196
18	162	159	160	176	172	174	221	211	214	201	198	200
19	161	159	160	176	173	174	218	195	210	202	192	198
20	162	159	160	177	172	175	225	204	217	205	174	198
21	166	160	163	181	177	178	217	212	214	203	195	199
22	164	162	163	183	178	180	215	212	214	205	196	201
23	166	158	163	181	179	180	217	213	215	210	205	207
24	166	160	163	182	180	181	230	217	225	217	208	212
25	167	163	165	184	180	182	220	207	214	213	206	209
26	170	164	167	185	182	183	210	182	205	214	205	209
27	168	161	166	185	181	183	211	182	206	209	203	207
28	169	162	166	183	180	182	211	208	210	211	187	208
29	168	162	165	183	180	181	212	206	209	215	206	210
30	169	162	167	186	181	183	211	204	208	215	209	213
31	---	---	---	184	182	183	208	204	206	---	---	---

CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.9	6.8	7.0	6.9	7.2	7.0	7.7	7.7	7.2	7.2	7.1	7.1
2	6.9	6.8	7.1	7.0	7.2	7.1	7.7	7.7	7.2	7.2	7.1	7.1
3	6.9	6.8	7.1	7.0	7.2	7.1	7.7	7.7	7.3	7.2	7.1	7.1
4	6.8	6.8	7.1	7.0	7.2	7.1	7.7	7.7	7.3	7.2	7.1	7.1
5	6.8	6.7	7.1	7.0	7.1	7.1	7.7	7.7	7.2	7.1	7.1	7.1
6	6.8	6.7	7.1	7.1	7.1	7.1	7.7	7.6	7.3	7.1	7.1	7.1
7	6.8	6.7	7.1	7.1	7.2	7.1	7.8	7.7	7.2	7.2	7.1	7.1
8	6.8	6.8	7.1	7.1	7.2	7.1	7.7	7.6	7.2	7.1	7.2	7.1
9	6.9	6.8	7.1	7.0	7.3	7.1	7.7	7.6	7.2	7.1	7.2	7.1
10	7.0	7.0	7.1	7.0	7.3	7.3	7.7	7.7	7.2	7.1	7.2	7.2
11	7.1	7.0	7.1	7.0	7.3	7.3	7.7	7.7	7.2	7.1	7.2	7.2
12	7.1	7.0	7.1	7.0	7.3	7.3	7.7	7.7	7.2	7.2	7.2	7.1
13	7.1	7.0	7.1	7.0	7.3	7.3	7.8	7.7	7.2	7.2	7.2	7.1
14	7.1	7.0	7.1	7.0	7.4	7.3	7.7	7.7	7.2	7.2	7.1	7.1
15	7.1	7.0	7.1	6.9	7.4	7.4	7.7	7.6	7.2	7.2	7.1	7.1
16	7.1	7.0	7.1	6.9	7.4	7.4	7.6	7.6	7.2	7.2	7.1	7.1
17	7.1	7.0	7.0	6.9	7.4	7.4	7.5	7.5	7.2	7.2	7.1	7.1
18	7.2	7.0	7.0	6.9	7.5	7.4	7.5	7.5	7.2	7.1	7.1	7.1
19	7.1	7.0	7.0	6.9	7.5	7.5	7.6	7.5	7.4	7.1	7.3	7.1
20	7.2	7.0	6.9	6.9	7.5	7.5	7.6	7.5	7.2	7.1	7.1	7.1
21	7.1	7.0	6.9	6.8	7.5	7.5	7.6	7.5	7.1	7.1	7.2	7.1
22	7.1	7.0	6.9	6.8	7.5	6.8	7.6	7.5	7.1	7.0	7.2	7.2
23	7.0	7.0	7.0	6.8	7.5	6.8	7.5	7.4	7.1	7.0	7.3	7.2
24	7.0	7.0	6.9	6.8	7.7	6.9	7.4	7.4	7.0	7.0	7.2	7.0
25	7.0	6.9	6.9	6.8	7.4	6.8	7.5	7.4	7.0	7.0	7.1	7.0
26	7.0	6.9	7.2	6.9	7.9	7.4	7.4	7.3	7.1	7.0	7.1	7.1
27	7.0	6.9	7.3	7.1	7.9	7.8	7.4	7.4	7.1	7.1	7.1	7.1
28	7.0	6.9	7.4	7.1	7.8	7.8	7.4	7.4	7.1	7.0	7.1	7.1
29	6.9	6.9	7.1	7.0	7.8	7.8	7.3	7.2	--	--	7.1	7.1
30	7.0	6.9	7.0	6.9	7.8	7.8	7.2	7.2	--	--	7.1	7.1
31	7.0	6.9	--	--	7.8	7.7	7.3	7.2	--	--	7.1	7.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.1	7.0	6.9	6.9	7.0	7.0	6.9	6.8	7.0	6.9	6.8	6.7
2	7.1	7.0	7.0	6.9	7.0	6.8	7.0	6.8	7.0	6.9	6.8	6.6
3	7.1	7.0	6.9	6.9	6.9	6.8	7.0	6.9	7.0	6.9	6.7	6.6
4	7.1	7.0	6.9	6.9	7.0	6.9	7.0	6.9	7.0	6.9	6.7	6.7
5	7.1	7.0	7.0	6.8	7.0	6.9	7.0	6.9	7.0	6.8	6.8	6.7
6	7.1	7.0	6.9	6.8	7.0	6.9	6.9	6.9	7.0	6.8	6.9	6.8
7	7.0	7.0	6.9	6.9	7.0	6.9	6.9	6.8	6.9	6.8	6.9	6.9
8	7.0	7.0	7.0	6.9	7.0	6.9	6.9	6.9	6.9	6.8	6.9	6.8
9	7.1	7.0	7.0	6.9	7.1	6.9	6.9	6.9	6.9	6.7	6.9	6.7
10	7.2	7.1	7.0	6.9	7.1	7.0	6.9	6.8	6.8	6.7	7.0	6.9
11	7.1	7.1	7.0	6.9	7.1	7.0	7.0	6.8	6.8	6.7	7.0	6.9
12	7.1	7.0	7.0	6.9	7.1	7.0	6.8	6.8	6.8	6.7	7.0	6.9
13	7.1	7.0	7.0	6.9	7.1	6.9	6.9	6.8	6.8	6.7	7.0	6.9
14	7.1	7.0	7.3	6.8	7.0	6.9	6.8	6.8	6.7	6.7	6.9	6.9
15	7.2	7.0	7.3	6.9	7.0	6.9	6.8	6.7	6.8	6.7	6.9	6.8
16	7.1	7.0	7.3	7.1	7.0	6.9	6.8	6.7	6.8	6.7	6.9	6.8
17	7.0	7.0	7.3	7.2	7.0	6.8	7.0	6.7	6.7	6.7	6.8	6.8
18	7.0	6.9	7.3	7.1	7.0	6.9	7.0	6.9	6.7	6.7	6.8	6.7
19	7.1	6.9	7.2	7.1	7.0	6.8	7.0	6.9	6.9	6.7	6.8	6.7
20	7.0	6.9	7.2	7.0	7.0	6.8	7.0	6.9	7.0	6.8	6.9	6.8
21	7.1	6.9	7.1	7.0	7.0	6.9	7.0	6.9	7.0	6.9	6.8	6.8
22	7.1	6.9	7.1	7.0	7.0	6.9	7.0	6.9	6.9	6.9	6.9	6.8
23	7.0	7.0	7.1	7.0	7.0	6.8	7.0	6.9	6.9	6.8	6.9	6.9
24	7.0	6.9	7.1	7.0	6.9	6.8	7.0	6.9	6.9	6.8	6.9	6.9
25	7.0	6.9	7.1	7.0	7.0	6.9	7.0	6.9	6.9	6.8	6.9	6.9
26	7.0	6.9	7.1	7.0	6.9	6.8	7.0	6.8	7.0	6.9	6.9	6.8
27	6.9	6.9	7.1	7.0	6.9	6.8	7.0	6.8	7.0	6.8	6.8	6.8
28	7.1	6.9	7.0	7.0	6.9	6.8	6.9	6.8	6.8	6.8	6.9	6.8
29	6.9	6.9	7.0	7.0	6.9	6.8	6.9	6.8	6.8	6.7	6.9	6.8
30	6.9	6.9	7.0	7.0	6.9	6.8	7.0	6.8	6.7	6.7	6.9	6.8
31	---	---	7.0	7.0	---	---	7.0	6.9	6.7	6.7	---	---

03400800 MARTINS FORK NEAR SMITH, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	20.0	20.5	18.0	17.5	18.0	14.5	14.0	14.5	4.0	3.0	3.0
2	21.0	20.0	20.5	18.0	18.0	18.0	14.5	13.0	13.5	4.0	3.0	3.0
3	21.5	20.0	20.5	18.0	17.5	17.5	13.0	12.5	12.5	3.5	3.5	3.5
4	22.5	20.0	21.0	17.5	16.5	17.0	12.0	11.5	12.0	4.0	3.5	3.5
5	20.5	19.0	20.0	16.5	16.0	16.0	11.5	11.0	11.0	3.5	3.0	3.5
6	20.5	18.5	19.0	16.0	15.0	15.5	11.0	10.0	10.5	4.0	3.0	3.5
7	21.0	18.0	19.5	15.0	14.5	15.0	10.0	9.5	9.5	4.0	3.5	3.5
8	20.5	18.5	19.5	14.5	14.0	14.0	9.5	9.0	9.5	4.0	3.5	3.5
9	20.5	19.0	19.5	14.5	13.5	14.0	9.5	8.5	9.0	4.5	3.5	3.5
10	21.0	18.5	19.0	14.5	13.5	14.0	9.0	8.5	8.5	4.5	3.5	4.0
11	20.0	19.0	19.0	15.0	13.5	14.0	9.0	8.5	8.5	4.5	3.5	4.0
12	20.5	19.0	19.5	14.5	13.5	14.0	9.0	8.5	9.0	4.5	3.5	4.0
13	20.5	19.0	19.5	15.0	13.5	14.0	8.5	8.0	8.5	4.0	3.5	3.5
14	20.0	19.0	19.5	15.0	14.0	14.5	8.0	7.0	7.5	4.5	3.5	3.5
15	20.0	19.0	19.5	15.0	13.5	14.0	7.0	6.5	7.0	5.5	3.5	4.0
16	20.5	18.5	19.5	15.0	13.0	14.0	7.0	6.5	7.0	5.5	3.5	4.0
17	20.0	18.5	19.0	14.5	13.5	14.0	7.0	6.5	6.5	5.5	4.0	4.5
18	20.5	19.0	19.5	15.0	13.5	14.0	6.5	5.5	6.0	5.5	4.5	5.0
19	21.0	19.0	19.5	15.0	13.5	14.0	5.5	5.0	5.5	5.0	4.0	5.0
20	21.0	19.5	20.0	14.0	13.5	14.0	5.5	4.5	5.0	4.5	4.0	4.0
21	20.0	19.5	19.5	13.5	13.5	13.5	5.0	4.0	4.5	5.5	4.0	4.5
22	20.5	19.5	20.0	14.5	13.5	14.0	4.5	3.5	4.0	5.0	4.5	4.5
23	19.5	19.5	19.5	14.0	13.5	13.5	4.5	4.0	4.0	5.0	4.5	4.5
24	19.5	19.5	19.5	14.0	13.5	13.5	4.0	3.5	4.0	5.0	4.5	4.5
25	20.5	19.0	19.5	13.5	13.5	13.5	3.5	3.0	3.0	4.5	4.5	4.5
26	20.0	18.5	19.0	14.5	13.5	14.0	2.5	2.0	2.5	4.5	4.0	4.5
27	19.5	18.5	19.0	14.5	14.0	14.0	2.5	2.0	2.5	4.0	3.0	3.5
28	19.5	18.5	19.0	15.0	14.0	14.5	3.0	2.0	2.5	3.0	2.5	3.0
29	18.5	18.0	18.0	14.5	13.5	14.0	3.5	2.0	2.5	3.5	3.0	3.5
30	19.0	17.5	18.0	14.5	14.0	14.0	3.5	[illegible]	2.5	5.0	3.5	4.0
31	18.5	17.5	18.0	---	---	---	3.0	2.5	3.0	5.5	3.5	4.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	4.0	4.5	7.0	6.0	6.5	12.5	8.0	9.5	14.0	11.5	12.0
2	6.0	4.5	5.0	6.5	6.0	6.5	11.0	8.5	9.5	15.0	11.0	12.5
3	5.0	4.0	4.5	6.5	6.0	6.0	11.5	8.0	9.5	14.5	10.5	12.0
4	4.5	4.0	4.0	6.0	6.0	6.0	11.5	8.5	9.5	15.0	10.0	12.0
5	6.5	4.5	5.5	6.5	6.0	6.0	11.5	8.5	10.0	15.5	10.5	12.5
6	7.5	5.5	6.0	6.5	6.0	6.0	11.0	9.0	9.5	16.0	11.5	13.5
7	7.0	6.5	7.0	6.0	6.0	6.0	12.0	9.0	10.0	15.5	12.0	13.5
8	6.5	6.0	6.5	6.5	5.5	6.0	11.0	8.5	9.5	18.0	14.0	16.0
9	6.5	6.0	6.0	7.0	6.0	6.5	9.0	8.0	9.0	19.0	14.5	16.0
10	6.5	6.0	6.0	7.5	6.5	7.0	12.5	8.0	9.5	18.5	14.5	16.0
11	6.0	5.5	6.0	8.0	7.0	7.5	13.0	8.5	10.5	18.0	14.5	16.0
12	5.5	5.0	5.5	8.0	7.0	7.5	13.5	8.5	10.5	17.0	15.0	16.0
13	5.5	5.0	5.0	9.5	7.0	8.0	12.5	9.0	10.5	18.0	15.0	16.0
14	5.0	4.0	4.5	9.0	8.0	8.5	13.0	9.5	12.0	19.5	14.5	16.5
15	5.0	4.5	4.5	8.0	7.5	8.0	14.0	9.5	11.5	19.0	15.5	16.0
16	5.0	4.5	4.5	9.0	7.5	8.0	10.0	9.0	9.5	18.5	16.0	17.0
17	5.0	4.5	4.5	9.5	7.5	8.5	10.0	9.0	9.5	20.0	17.5	19.0
18	5.5	4.5	5.0	9.0	8.5	8.5	14.0	9.5	11.5	20.0	17.5	18.5
19	5.5	5.0	5.0	12.0	8.5	10.5	15.5	9.5	12.0	19.0	17.5	18.0
20	5.5	5.0	5.5	9.5	9.0	9.5	11.5	10.5	11.0	18.0	16.5	17.5
21	6.5	5.5	6.0	9.5	9.0	9.5	12.0	10.0	11.0	17.0	15.5	16.5
22	6.5	5.5	6.0	9.5	9.0	9.0	13.0	9.5	11.0	17.0	15.5	16.0
23	7.0	6.0	6.5	10.5	9.0	9.5	14.0	9.0	11.0	16.0	15.5	16.0
24	7.5	6.0	6.5	11.5	8.5	10.0	14.5	9.5	11.5	17.0	16.0	16.5
25	7.0	6.0	6.5	12.0	7.5	9.5	15.0	10.0	12.0	17.5	16.5	16.5
26	7.0	6.5	6.5	11.0	7.5	9.5	15.5	10.5	12.5	17.0	16.5	16.5
27	7.0	7.0	7.0	11.0	7.0	8.0	15.5	11.0	12.5	17.5	16.5	17.0
28	6.5	6.5	6.5	11.5	7.0	9.0	14.0	11.0	12.0	18.0	17.0	17.5
29	---	---	---	11.5	7.0	9.0	15.0	11.0	12.5	18.0	17.5	17.5
30	---	---	---	12.0	7.5	9.5	15.5	10.5	13.0	18.5	17.5	18.0
31	---	---	---	12.0	7.5	9.5	---	---	---	19.0	18.0	18.5

03400800 MARTINS FORK NEAR SMITH, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.5	18.5	19.0	26.0	23.0	24.0	27.5	23.5	25.5	24.0	22.5	23.5
2	21.5	19.0	19.5	25.5	22.5	23.5	27.0	24.0	25.0	24.0	23.0	23.5
3	21.5	18.0	19.5	26.0	22.0	23.5	27.0	23.5	25.0	24.5	23.0	23.5
4	20.0	18.5	19.0	26.5	22.0	23.5	27.0	23.5	25.0	24.0	23.5	23.5
5	21.0	18.5	19.5	26.5	22.5	24.0	27.5	23.5	25.0	24.5	23.5	24.0
6	21.5	19.0	20.0	27.0	22.5	24.5	27.0	23.5	25.0	25.0	23.5	24.0
7	22.0	19.0	20.0	27.0	23.0	24.5	27.0	24.0	25.0	24.5	23.5	24.0
8	21.5	19.5	20.0	27.0	23.0	24.5	27.0	24.0	25.0	25.0	23.0	24.0
9	21.5	19.5	20.0	26.5	23.5	24.5	26.5	24.0	25.0	24.5	22.5	23.5
10	21.5	20.0	20.5	25.5	23.5	24.0	27.0	24.0	25.5	25.0	23.0	23.5
11	23.0	20.0	21.5	27.5	23.5	25.0	26.5	24.0	25.0	24.5	23.0	23.5
12	22.5	20.5	21.0	26.0	23.5	24.5	27.5	24.0	25.5	25.0	23.0	23.5
13	22.5	20.5	21.0	26.5	24.0	24.5	27.5	24.0	25.5	25.0	22.5	23.5
14	23.5	20.5	21.5	27.5	23.5	25.0	28.0	24.0	26.0	25.0	22.5	23.5
15	24.0	20.5	21.5	26.0	23.5	24.5	27.5	24.5	26.0	24.5	23.0	23.5
16	24.0	20.5	22.0	27.5	24.0	25.0	28.5	24.5	26.0	24.5	23.0	23.5
17	24.0	20.5	22.0	27.0	23.5	25.0	25.5	24.5	25.0	25.0	22.5	23.5
18	24.5	20.0	22.0	27.0	23.5	25.0	27.0	24.5	25.5	24.0	23.0	23.5
19	25.0	20.0	22.0	27.0	23.5	25.0	27.5	24.0	25.5	24.5	23.0	23.5
20	24.5	21.0	22.5	27.5	23.5	25.0	27.5	24.0	26.5	25.5	23.0	24.0
21	25.5	21.5	23.0	27.5	23.5	25.0	27.5	24.5	25.5	26.0	23.5	24.5
22	26.0	21.5	23.0	28.0	24.0	25.5	28.0	24.5	26.0	25.5	23.0	24.0
23	25.5	22.0	23.5	27.5	24.5	25.5	27.0	25.0	26.0	25.5	24.0	24.5
24	25.5	22.0	23.5	28.0	24.5	25.5	27.5	24.5	26.0	26.0	24.5	25.0
25	26.0	21.5	23.5	27.5	24.5	26.0	28.0	24.0	25.5	26.5	24.5	25.5
26	26.0	21.5	23.5	28.0	24.5	26.0	28.0	24.5	25.5	27.0	24.5	25.5
27	25.0	22.0	23.0	28.5	24.5	26.0	27.0	25.0	25.5	26.5	24.5	25.0
28	26.5	22.0	24.0	27.0	25.0	26.0	25.5	23.5	24.5	27.0	24.5	25.5
29	26.0	22.5	23.5	28.0	24.0	25.5	26.5	22.5	24.5	27.0	24.5	25.5
30	26.5	22.5	24.0	28.0	23.5	25.5	26.5	22.5	24.5	27.0	25.0	26.0
31	---	---	---	26.0	23.5	24.5	25.5	23.5	24.0	---	---	---

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.1	7.7	7.9	10.1	9.9	10.0	9.6	9.5	9.5	12.5	12.2	12.3
2	8.4	8.0	8.2	10.1	9.8	9.9	10.0	9.6	9.8	12.7	12.2	12.4
3	8.5	8.1	8.2	10.3	9.6	10.0	10.1	10.0	10.1	12.7	12.5	12.6
4	8.5	8.1	8.3	11.6	10.0	10.4	10.3	10.1	10.2	12.7	12.4	12.6
5	8.6	8.2	8.4	10.9	10.6	10.8	10.3	10.3	10.3	12.8	12.4	12.7
6	8.6	8.3	8.5	---	---	---	10.7	10.3	10.6	12.8	12.5	12.6
7	9.0	8.4	8.7	---	---	---	10.8	10.7	10.8	13.2	12.5	12.8
8	9.0	8.7	8.9	---	---	---	10.8	10.8	10.8	13.2	12.4	12.7
9	8.9	8.6	8.8	---	---	---	12.5	10.8	11.6	12.6	12.2	12.3
10	8.8	8.2	8.5	---	---	---	12.7	11.0	11.3	12.4	12.1	12.2
11	8.2	7.0	7.6	---	---	---	12.7	10.9	11.3	12.7	12.1	12.2
12	7.9	6.9	7.3	---	---	---	11.1	10.9	11.0	12.2	12.0	12.1
13	7.9	7.3	7.6	---	---	---	11.2	11.0	11.0	12.4	12.1	12.2
14	7.8	7.2	7.5	---	---	---	11.5	11.1	11.4	12.6	12.1	12.2
15	7.5	7.2	7.3	---	---	---	11.7	11.4	11.5	12.9	12.3	12.6
16	7.5	6.7	7.2	---	---	---	11.7	11.3	11.5	13.1	12.4	12.8
17	7.4	6.4	6.9	---	---	---	11.6	11.4	11.5	12.7	12.3	12.4
18	7.6	6.7	7.2	---	---	---	12.1	11.5	11.8	12.7	12.3	12.5
19	8.0	7.1	7.6	---	---	---	12.3	11.8	12.0	12.5	11.6	12.2
20	7.9	7.5	7.8	---	---	---	12.2	11.8	12.0	12.3	11.7	12.0
21	8.0	7.8	7.9	9.5	9.4	9.4	12.4	12.2	12.3	12.6	12.0	12.4
22	8.1	7.9	8.0	9.4	9.3	9.4	12.6	12.2	12.3	13.3	12.5	12.8
23	8.5	8.1	8.2	9.7	9.3	9.5	12.4	12.2	12.3	13.1	12.6	12.8
24	8.6	8.5	8.5	9.6	9.4	9.5	12.4	12.1	12.2	12.9	12.5	12.7
25	9.6	9.1	9.3	9.7	9.3	9.5	12.8	12.4	12.6	12.9	12.4	12.6
26	9.5	8.5	9.0	9.6	9.5	9.6	12.9	12.5	12.7	12.7	12.2	12.5
27	8.9	8.1	8.6	9.7	9.6	9.6	12.7	12.4	12.6	13.2	12.1	12.7
28	8.9	7.9	8.4	9.6	9.5	9.5	12.9	12.5	12.6	13.3	12.7	12.9
29	8.8	8.2	8.5	9.6	9.3	9.4	12.6	12.4	12.5	13.2	12.2	12.6
30	9.9	8.5	9.0	9.5	9.3	9.4	12.6	12.3	12.4	13.1	12.0	12.5
31	10.3	9.7	10.0	---	---	---	12.4	12.1	12.2	13.1	12.7	12.9

03400800 MARTINS FORK NEAR SMITH, KY--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.4	12.7	13.0	12.5	12.0	12.3	10.6	10.1	10.4	10.8	9.2	10.1
2	13.0	12.6	12.8	12.6	11.8	12.3	10.7	10.3	10.5	10.8	9.9	10.4
3	13.3	12.6	13.0	12.7	11.9	12.3	10.6	10.0	10.3	10.7	10.0	10.3
4	13.6	12.9	13.2	12.7	12.1	12.4	10.7	10.1	10.4	10.6	9.6	10.3
5	13.2	12.1	12.7	12.7	11.7	12.3	10.6	10.2	10.3	10.2	9.6	9.9
6	12.9	11.7	12.5	12.6	11.9	12.3	10.3	9.4	9.7	10.4	9.7	10.0
7	12.3	11.8	12.0	12.6	12.0	12.3	10.0	9.5	9.8	10.4	8.8	9.9
8	12.5	11.8	12.1	12.7	11.8	12.3	10.1	9.7	9.9	9.0	8.7	8.9
9	12.4	11.9	12.2	12.5	11.6	12.1	10.4	9.9	10.1	9.1	8.4	8.8
10	12.5	11.8	12.2	12.3	11.4	12.0	10.6	9.6	10.3	8.9	8.2	8.5
11	12.5	11.8	12.2	12.3	11.7	12.0	10.7	10.6	10.6	8.7	7.8	8.3
12	12.7	12.0	12.4	12.1	11.5	11.7	---	---	---	8.4	7.6	8.0
13	12.6	12.0	12.4	12.0	11.4	11.7	---	---	---	8.2	7.2	7.6
14	12.3	12.0	12.1	12.1	11.5	11.8	---	---	---	7.8	6.4	7.3
15	12.5	12.1	12.3	12.1	11.8	11.9	11.4	10.2	10.8	7.5	6.8	7.2
16	12.4	12.0	12.2	12.3	11.2	11.7	11.6	10.6	11.1	10.7	9.7	10.1
17	12.3	11.8	12.0	11.6	11.0	11.3	11.5	10.8	11.1	11.1	9.3	10.2
18	12.3	11.6	12.0	11.6	10.7	11.1	11.4	10.6	10.9	---	---	---
19	12.3	11.7	12.0	11.3	10.2	10.7	11.1	10.4	10.7	---	---	---
20	12.5	11.9	12.2	11.1	10.7	10.9	10.8	9.9	10.4	---	---	---
21	12.4	11.7	12.1	11.1	10.6	10.9	10.8	9.7	10.3	---	---	---
22	12.3	11.6	11.9	11.2	10.7	11.0	10.7	10.2	10.5	---	---	---
23	12.2	11.5	11.8	11.1	10.6	10.8	10.8	10.4	10.6	---	---	---
24	13.0	11.4	11.8	11.2	10.2	10.7	10.4	10.0	10.2	---	---	---
25	12.9	11.9	12.4	11.4	10.1	10.7	10.6	9.7	10.1	---	---	---
26	12.6	11.6	11.9	11.4	10.5	10.9	10.4	9.5	9.9	---	---	---
27	12.3	11.8	12.0	---	---	---	10.2	9.4	9.7	---	---	---
28	12.6	12.1	12.3	---	---	---	10.2	9.4	9.7	---	---	---
29	---	---	---	---	---	---	9.9	9.1	9.5	---	---	---
30	---	---	---	---	---	---	9.8	9.1	9.4	---	---	---
31	---	---	---	10.7	10.1	10.4	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.9	7.0	7.4	8.0	6.8	7.3	7.3	6.4	6.9
2	---	---	---	7.5	7.1	7.3	8.3	6.9	7.4	6.9	6.3	6.6
3	8.4	7.6	8.0	7.5	7.0	7.2	8.5	7.3	7.7	6.9	6.3	6.6
4	8.3	7.6	7.9	8.0	7.3	7.6	8.6	7.4	7.9	6.8	6.6	6.7
5	8.6	7.8	8.2	8.2	7.4	7.8	8.6	7.4	7.9	6.8	6.7	6.7
6	8.8	8.2	8.5	8.3	7.4	7.9	8.5	7.2	7.7	7.0	6.9	7.0
7	8.9	8.2	8.5	8.4	7.6	7.9	8.5	7.2	7.7	7.1	7.0	7.1
8	8.8	8.0	8.5	8.6	7.8	8.1	8.5	7.3	7.7	7.2	6.8	7.0
9	9.2	8.3	8.8	8.6	7.8	8.3	8.3	7.1	7.6	7.2	7.1	7.2
10	9.1	8.7	8.9	8.3	7.5	7.9	8.1	6.9	7.4	7.4	7.0	7.2
11	9.2	8.6	8.8	8.1	7.1	7.6	7.7	6.7	7.1	7.7	7.1	7.4
12	8.9	8.6	8.8	7.6	6.8	7.1	7.6	6.7	7.0	7.9	7.3	7.5
13	9.1	8.0	8.6	7.5	6.8	7.0	7.5	6.6	7.0	8.2	7.6	7.8
14	8.9	8.0	8.4	7.4	6.9	7.1	7.3	6.5	6.8	8.4	7.8	8.0
15	8.9	7.9	8.3	7.5	6.7	7.1	7.2	6.4	6.7	8.5	7.7	8.0
16	8.7	7.5	8.1	7.3	6.6	7.0	7.1	6.3	6.6	8.5	7.8	8.1
17	8.4	7.5	7.9	8.0	6.7	7.0	7.0	6.4	6.6	8.7	7.8	8.2
18	8.6	7.3	7.8	8.0	6.9	7.3	7.0	6.5	6.7	8.5	7.8	8.1
19	8.8	7.2	7.9	8.3	7.1	7.5	7.1	6.5	6.8	8.3	7.3	7.9
20	8.7	7.3	7.9	8.3	7.0	7.5	7.0	6.5	6.8	7.9	6.9	7.5
21	8.6	7.4	7.9	8.3	.1	7.6	7.6	6.5	6.9	7.4	6.8	7.1
22	8.6	7.4	7.9	8.4	7.2	7.7	7.7	6.6	7.1	7.3	6.9	7.1
23	8.5	7.2	7.5	8.4	7.2	7.7	7.8	6.7	7.2	7.2	6.8	7.1
24	8.3	7.4	7.8	8.4	7.1	7.6	8.0	7.0	7.4	7.1	6.7	6.9
25	8.3	7.4	7.8	8.3	7.0	7.5	8.1	7.0	7.5	7.0	6.7	6.9
26	8.3	7.6	7.9	8.2	6.9	7.4	8.3	7.0	7.6	7.0	6.3	6.7
27	8.4	7.5	7.8	8.2	6.8	7.4	8.2	7.0	7.4	6.8	6.4	6.6
28	8.3	7.3	7.8	8.0	6.7	7.2	7.9	7.1	7.4	6.8	6.5	6.6
29	8.2	7.1	7.7	7.9	6.8	7.2	8.0	7.0	7.5	7.0	6.7	6.9
30	8.0	7.1	7.5	7.6	6.9	7.2	7.8	6.9	7.3	7.1	6.7	7.0
31	---	---	---	7.8	6.7	7.1	7.5	6.6	7.0	---	---	---

CUMBERLAND RIVER BASIN

03400990 CLOVER FORK AT HARLAN, KY

LOCATION.--Lat 36°50'51", long 83°19'32", Harlan County, Hydrologic Unit 05130101, on right bank of U.S. Highway 421, 60 ft upstream from bridge on Central Street, 800 ft downstream from Martins Fork, 1.4 mi upstream from Poor Fork, and at mile 1.4.

DRAINAGE AREA.--222 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,155.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 26, Jan. 7-9, 16, 18, 25-29, and Mar. 8-13. Records good except for estimated daily discharges, which are poor. Flow regulated by Martins Fork Dam (station 03400798) beginning January 1979.

AVERAGE DISCHARGE.--9 years, 390 ft³/s, 23.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,700 ft³/s, May 7, 1984, gage height, 20.09 ft, from rating curve extended above 5,000 cfs on basis of slope conveyance study at gage height, 29.4 ft; minimum daily, 13 ft³/s.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 4, 1977, reached a stage of 29.4 ft present datum, from floodmarks, discharge, 44,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,730 ft³/s, Feb. 17, gage height, 9.54 ft; minimum daily, 33 ft³/s, July 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	50	849	213	185	697	148	106	302	35	36	266
2	100	83	728	187	328	634	145	101	260	40	36	283
3	91	140	437	255	737	583	138	93	126	47	36	246
4	57	274	397	243	1040	498	135	89	105	41	35	226
5	52	432	376	235	1130	471	130	87	99	36	34	213
6	46	366	326	215	1160	460	124	84	96	35	34	161
7	42	390	227	200	1990	432	133	79	97	34	37	144
8	51	306	211	190	1080	390	120	80	101	33	38	133
9	57	262	201	170	778	370	112	77	95	36	37	89
10	57	239	185	156	657	350	105	73	136	164	39	79
11	56	111	178	146	595	380	100	69	128	106	116	75
12	56	84	220	129	520	410	97	73	123	74	80	144
13	56	79	308	123	445	500	97	78	111	118	49	111
14	55	77	395	114	432	674	96	85	81	109	43	91
15	57	74	361	100	378	1070	93	179	72	96	48	82
16	58	74	315	94	381	840	88	258	71	59	43	79
17	55	109	276	87	3360	581	88	275	63	51	46	79
18	55	99	242	83	4480	549	88	201	58	46	48	74
19	54	93	205	201	2310	611	83	164	56	42	49	121
20	53	172	209	232	1680	536	85	188	53	42	285	101
21	63	138	189	195	1320	494	136	234	51	48	95	181
22	64	273	183	299	1130	463	114	121	47	47	61	110
23	60	306	197	321	1020	445	100	118	45	40	51	133
24	58	252	184	294	928	397	96	213	44	40	47	334
25	56	211	162	270	710	245	96	251	40	39	43	223
26	56	290	150	250	661	221	96	237	37	38	42	167
27	55	430	141	230	788	209	93	438	38	39	56	118
28	54	1510	130	211	792	189	101	531	55	39	95	106
29	52	2520	108	190	---	176	145	481	43	38	62	106
30	52	1100	98	177	---	166	113	412	37	37	49	124
31	51	---	156	150	---	157	---	334	---	36	47	---
TOTAL	1802	10544	8344	5960	31015	14198	3295	5809	2670	1685	1817	4399
MEAN	58.1	351	269	192	1108	458	110	187	89.0	54.4	58.6	147
MAX	100	2520	849	321	4480	1070	148	531	302	164	285	334
MIN	42	50	98	83	185	157	83	69	37	33	34	74
CFSM	.26	1.58	1.21	.86	4.99	2.06	.50	.84	.40	.25	.26	.66
IN	.30	1.77	1.40	.00	5.20	2.38	.55	.97	.45	.28	.30	.74

CAL YR 1985	TOTAL	112608	MEAN	309	MAX	2710	MIN	37	CFSM 1.39	IN	18.87
WTR YR 1986	TOTAL	91538	MEAN	251	MAX	4480	MIN	33	CFSM 1.13	IN	15.34

03400990 CLOVER FORK AT HARLAN, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1980 to current year.
PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: January 1980 to current year.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 4,330 mg/L, May 7, 1984; minimum daily mean, 1 mg/L, Jan. 9, 21, 1984 and Apr. 25, 26, 1985.
SEDIMENT LOADS: Maximum daily, 175,000 tons, May 7, 1984; minimum daily, 0.11 ton, Aug. 6, 1986.
EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,420 mg/L, Feb. 18; minimum daily mean, 1 mg/L, Jan. 6-11, Aug. 3-6.
SEDIMENT LOADS: Maximum daily, 19,200 tons, Feb. 18; minimum daily, 0.11 ton, Aug. 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT^3/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1985						
03...	1525	86	18.0	580	160	37
NOV						
20...	1215	89	14.5	380	5	1.2
JAN 1986						
07...	1410	200	3.0	300	7	3.8
FEB						
21...	1250	1380	4.0	330	172	641
MAR						
31...	1420	166	16.5	450	3	1.2
MAY						
12...	1115	75	25.0	480	11	2.2
JUN						
23...	1150	42	22.0	560	1	0.11
AUG						
12...	1345	67	27.5	740	188	34

CUMBERLAND RIVER BASIN

03400990 CLOVER FORK AT HARLAN, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	73	44	9.1	50	5	.70	849	156	358
2	100	49	13	83	30	7.1	728	69	137
3	91	129	35	140	48	20	437	43	50
4	57	43	6.8	274	126	96	397	28	30
5	52	23	3.2	432	172	203	376	18	18
6	46	12	1.6	366	58	58	326	12	11
7	42	7	.84	390	82	87	227	9	5.4
8	51	9	1.3	306	51	43	211	7	3.7
9	57	8	1.3	262	37	26	201	5	2.6
10	57	7	1.1	239	28	18	185	15	7.4
11	56	6	.99	111	20	5.9	178	8	4.1
12	56	6	.94	84	12	2.8	220	6	3.5
13	56	6	.94	79	6	1.2	308	10	8.3
14	55	6	.90	77	3	.62	395	15	16
15	57	9	1.4	74	3	.54	361	10	10
16	58	9	1.5	74	9	1.8	315	5	4.2
17	55	5	.71	109	46	14	276	4	3.0
18	55	2	.37	99	17	4.5	242	4	2.8
19	54	2	.36	93	8	2.0	205	5	2.7
20	53	2	.35	172	46	44	209	5	2.9
21	63	14	2.9	138	65	24	189	4	2.1
22	64	9	1.5	273	106	86	183	3	1.5
23	60	7	1.1	306	100	83	197	3	1.5
24	58	6	.98	252	65	44	184	3	1.4
25	56	6	.94	211	54	31	162	3	1.2
26	56	6	.91	290	84	66	150	3	1.1
27	55	6	.85	430	479	648	141	3	1.0
28	54	5	.76	1510	1120	5210	130	2	.84
29	52	5	.72	2520	469	3780	108	2	.61
30	52	5	.73	1100	219	641	98	2	.48
31	51	5	.73	---	---	---	156	9	4.4
TOTAL	1802	---	93.82	10544	---	11249.16	8344	---	696.73
		JANUARY			FEBRUARY			MARCH	
1	213	6	3.8	185	20	11	697	54	103
2	187	2	1.2	328	91	85	634	42	72
3	255	7	4.9	737	232	531	583	34	54
4	243	2	1.1	1040	250	717	498	29	39
5	235	2	.98	1130	248	781	471	26	34
6	215	1	.83	1160	232	746	460	24	30
7	200	1	.72	1990	403	2230	432	22	26
8	190	1	.62	1080	135	405	390	20	21
9	170	1	.56	770	76	161	370	18	18
10	156	1	.57	657	57	102	350	16	15
11	146	1	.59	595	47	75	380	15	16
12	129	2	.57	520	39	55	410	15	16
13	123	2	.58	445	35	42	500	83	112
14	114	2	.59	432	33	38	674	83	155
15	100	2	.53	378	31	31	1070	148	432
16	94	2	.51	381	48	53	840	69	161
17	87	2	.48	3360	1270	18400	581	47	73
18	83	11	2.5	4480	1420	19200	549	42	63
19	201	37	21	2310	543	3510	611	39	66
20	232	18	11	1680	290	1360	536	23	34
21	195	14	7.5	1320	121	431	494	18	24
22	299	35	28	1130	108	331	463	16	21
23	321	13	11	1020	99	274	445	15	17
24	294	11	9.0	928	87	218	397	12	13
25	270	11	7.7	710	80	152	245	10	6.9
26	250	10	6.6	661	74	132	221	8	4.5
27	230	9	5.8	788	83	178	209	4	2.2
28	211	9	5.1	792	73	156	189	2	1.2
29	190	9	4.5	---	---	---	176	2	1.2
30	177	8	3.7	---	---	---	166	3	1.2
31	150	8	3.2	---	---	---	157	3	1.2
TOTAL	5960	---	145.73	31015	---	50405	14198	---	1633.4

03400990 CLOVER FORK AT HARLAN, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			MAY			JUNE	
1	148	3	1.1	106	7	1.9	302	46	37
2	145	3	1.0	101	5	1.4	260	37	26
3	138	2	.88	93	5	1.3	126	26	8.9
4	135	2	.78	89	5	1.2	105	20	5.8
5	130	2	.68	87	5	1.3	99	17	4.4
6	124	2	.60	84	5	1.2	96	15	4.0
7	133	4	1.4	79	5	.98	97	14	3.8
8	120	3	.91	80	4	.96	101	14	3.9
9	112	3	.87	77	4	.83	95	10	2.5
10	105	3	.89	73	4	.75	136	27	10
11	100	3	.84	69	3	.59	128	19	6.6
12	97	3	.73	73	3	.56	123	14	4.7
13	97	3	.84	78	13	2.8	111	9	2.6
14	96	4	1.1	85	14	3.8	81	6	1.4
15	93	4	.99	179	64	33	72	5	.95
16	88	4	.91	258	74	53	71	4	.83
17	88	3	.64	275	67	50	63	4	.74
18	88	2	.44	201	43	23	58	4	.63
19	83	2	.45	164	29	13	56	4	.63
20	85	4	1.1	188	27	15	53	4	.61
21	136	19	6.9	234	32	21	51	3	.44
22	114	10	3.1	121	16	5.1	47	3	.33
23	100	9	2.3	118	20	7.1	45	3	.37
24	96	7	1.8	213	58	34	44	3	.38
25	96	6	1.7	251	57	39	40	3	.33
26	96	6	1.6	237	47	30	37	3	.26
27	93	6	1.5	438	305	403	38	8	.97
28	101	28	9.1	531	170	247	55	55	9.6
29	145	62	25	481	105	136	43	18	2.1
30	113	13	4.0	412	85	95	37	[illegible]	.75
31	---	---	---	334	62	56	---	---	---
TOTAL	3295	---	74.15	5809	---	1279.77	2670	---	140.52
		JULY			AUGUST			SEPTEMBER	
1	35	5	.49	36	3	.27	266	777	822
2	40	8	.97	36	2	.19	283	372	323
3	47	8	1.0	36	1	.13	246	160	113
4	41	7	.75	35	1	.13	226	89	55
5	36	5	.47	34	1	.13	213	61	35
6	35	4	.41	34	1	.11	161	43	19
7	34	4	.36	37	7	.84	144	25	9.9
8	33	3	.29	38	10	1.0	133	17	6.1
9	36	9	1.3	37	6	.59	89	14	3.3
10	164	87	43	39	7	.72	79	13	2.7
11	106	52	15	116	253	109	75	12	2.5
12	74	37	7.4	80	226	56	144	222	93
13	118	124	70	49	42	5.6	111	49	16
14	109	181	55	43	37	4.2	91	12	2.9
15	96	111	29	48	109	15	82	7	1.6
16	59	62	10	43	35	4.1	79	6	1.2
17	51	37	5.1	46	36	4.6	79	5	1.1
18	46	26	3.2	48	23	3.0	74	5	.97
19	42	17	2.0	49	102	42	121	173	70
20	42	9	1.1	285	1310	1070	101	69	23
21	48	16	2.3	95	269	75	181	128	66
22	47	16	2.0	61	88	15	110	47	14
23	40	9	.99	51	56	7.8	133	76	30
24	40	6	.67	47	34	4.4	334	144	139
25	39	5	.49	43	21	2.5	223	46	28
26	38	4	.42	42	15	1.7	167	36	16
27	39	11	1.2	56	72	17	118	33	10
28	39	14	1.5	95	139	38	106	37	11
29	38	8	.79	62	31	5.3	106	44	13
30	37	5	.52	49	21	2.9	124	61	21
31	36	4	.36	47	27	3.5	---	---	---
TOTAL	1685	---	258.08	1817	---	1490.71	4399	---	1949.27
YEAR	91538		69416.34						

CUMBERLAND RIVER BASIN

03401000 CUMBERLAND RIVER NEAR HARLAN, KY

LOCATION.--Lat 36°50'48", long 83°21'21", Harlan County, Hydrologic Unit 05130101, on left bank 10 ft downstream from bridge on State Highway 840 at Loyall, 1.6 mi upstream from Fourmile Branch, 2.3 mi downstream from confluence of Poor and Clover Forks, 1.8 mi west of Harlan, and at mile 691.9.

DRAINAGE AREA.--374 mi².

PERIOD OF RECORD.--March 1940 to current year.

REVISED RECORDS.--WSP 953: 1940(M). WSP 1173: 1947(M).

GAGE.--Water-stage recorder. Datum of gage is 1,140.10 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 4, 1941, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 26, Jan. 9-14, 17 and Jan. 27, 28. Records good except for estimated daily discharges, which are poor. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--46 years, 680 ft³/s, 24.69 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,500 ft³/s, Apr. 5, 1977, gage height, 30.20 ft from rating curve extended above 25,000 ft³/s on basis of contracted-opening measurement of peak flow; minimum, 3.0 ft³/s, Oct. 9, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of 1918 and 1929 reached a stage of about 22 ft and 20.0 ft respectively, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base discharge of 8,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	2400	8,230	9.80	Feb. 18	0500	*10,300	*11.21

Minimum discharge, 32 ft³/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	68	1410	320	329	1170	278	243	472	73	40	482
2	129	109	1180	299	545	1020	269	232	422	80	38	602
3	146	179	755	356	1350	922	261	213	257	102	38	514
4	126	344	645	356	2440	773	249	200	216	91	36	389
5	99	310	592	341	2010	703	236	190	198	72	34	342
6	88	901	539	312	2060	669	227	181	187	63	33	255
7	77	776	408	308	3500	619	235	169	199	56	39	205
8	80	533	374	262	2030	519	219	161	200	53	45	179
9	91	410	352	240	1320	504	206	157	210	53	40	120
10	87	353	325	230	1040	505	195	143	336	298	42	97
11	85	230	309	221	902	613	186	132	288	298	213	89
12	83	168	356	214	753	616	184	145	250	193	230	182
13	82	147	487	211	621	763	178	176	215	209	95	172
14	84	142	709	200	594	1140	178	187	169	281	62	120
15	88	135	687	184	539	2290	173	401	144	259	69	101
16	90	132	590	157	523	2060	165	412	134	136	53	96
17	85	192	511	150	4720	1290	166	550	120	102	55	88
18	79	185	442	164	7740	1050	165	432	108	86	66	80
19	77	167	360	289	3860	1070	155	350	100	76	60	135
20	80	213	355	395	3210	928	152	362	94	69	427	109
21	91	210	331	345	2230	821	238	420	91	75	195	260
22	99	327	293	442	1750	742	231	278	86	85	107	149
23	97	451	330	532	1580	689	215	256	80	62	77	156
24	90	409	313	526	1450	622	205	367	76	56	62	503
25	89	345	287	494	1160	448	202	403	73	52	62	345
26	85	390	260	501	1050	406	201	391	70	51	54	238
27	81	587	250	470	1220	387	198	624	78	52	67	159
28	79	2700	232	440	1330	360	204	861	119	54	159	131
29	76	5180	201	421	---	330	300	802	93	49	117	132
30	73	2080	177	383	---	310	259	666	80	47	83	145
31	70	---	234	317	---	294	---	538	---	43	66	---
TOTAL	2758	18873	14294	10080	51856	24633	6330	10642	5165	3276	2764	6575
MEAN	89.0	629	461	325	1852	795	211	343	172	106	89.2	219
MAX	146	5180	1410	532	7740	2290	300	861	472	298	427	602
MIN	70	68	177	150	329	294	152	132	70	43	33	80
CFSM	.24	1.68	1.23	.87	4.95	2.13	.56	.92	.46	.28	.24	.59
IN	.27	1.88	1.42	1.00	5.16	2.45	.63	1.06	.51	.33	.27	.65

CAL YR 1985 TOTAL 186579 MEAN 511 MAX 5180 MIN 56 CFSM 1.37 IN 18.56
WTR YR 1986 TOTAL 157246 MEAN 431 MAX 7740 MIN 33 CFSM 1.15 IN 15.64

CUMBERLAND RIVER BASIN

03401428 BENNETTS FORK AT MIDDLESBORO, KY

LOCATION.--Lat 36°36'06", long 83°45'06", Bell County Hydrologic Unit 05130101, on left bank 50 ft upstream from Davis Grocery on State Highway 186 west in Middlesboro.

DRAINAGE AREA.--13.0 mi^2.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--October 1985 to September 1986.

GAGE.--Water-stage recorder. Datum of gage is 1,166.826 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 8, 11-22, Dec. 14-16, 19, 21, 22, 25-27, 31, to Jan. 2, 5-15, 28-30. Records good except for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 964 ft^3/s, Aug. 20, gage height, 3.88 ft; minimum discharge, 2.0 ft^3/s, Aug. 5-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	3.2	41	20	18	32	18	9.5	9.3	4.7	2.7	144
2	9.0	4.0	33	18	25	30	17	9.3	8.7	8.0	2.5	155
3	13	10	28	16	60	29	17	8.7	8.0	5.3	2.2	99
4	8.0	27	24	15	57	28	16	8.2	7.6	3.4	2.3	49
5	5.8	60	25	14	114	27	15	8.5	8.1	3.1	2.3	38
6	4.8	34	22	14	92	26	16	8.8	7.5	3.0	2.0	28
7	4.0	20	19	13	87	24	15	8.6	6.6	2.7	7.9	21
8	3.6	13	19	13	60	23	14	8.6	12	2.5	4.2	19
9	3.3	12	17	12	48	21	14	8.0	8.1	2.7	2.7	16
10	3.2	11	16	12	42	21	13	7.4	7.3	6.4	4.0	14
11	3.1	9.5	17	11	37	21	13	6.6	6.3	7.8	47	12
12	2.9	8.6	16	11	32	20	13	6.8	5.7	5.8	12	13
13	2.8	8.2	23	10	29	19	13	8.2	5.0	5.6	6.3	11
14	3.1	6.6	35	10	31	30	12	8.0	4.4	18	4.4	9.4
15	4.0	5.8	27	9.8	29	37	12	7.7	4.3	14	8.2	8.2
16	3.5	9.0	23	9.5	33	45	12	7.8	3.8	7.7	13	8.2
17	3.2	12	22	9.5	361	40	12	7.4	3.4	5.2	35	8.1
18	3.0	9.0	19	10	372	35	11	6.6	4.4	4.6	15	8.7
19	2.9	8.0	18	20	115	36	9.5	6.5	4.4	4.2	9.4	8.3
20	2.9	7.4	17	17	63	58	10	5.8	4.3	3.4	114	9.0
21	5.4	7.0	17	15	49	43	15	5.6	3.8	3.4	70	9.7
22	8.0	23	16	16	44	37	13	5.0	3.4	3.1	21	7.7
23	4.5	20	16	16	39	34	12	14	3.4	3.1	14	16
24	5.8	17	15	15	37	31	11	13	3.2	3.1	10	23
25	4.7	15	14	16	34	28	9.9	12	2.7	3.1	7.4	13
26	3.7	13	14	17	33	25	9.4	9.0	2.7	3.2	5.7	10
27	3.4	18	13	19	35	23	8.9	21	5.1	3.0	24	8.6
28	3.1	86	12	17	34	23	12	21	12	2.7	34	8.4
29	2.9	111	11	16	---	21	12	16	4.8	2.7	16	7.3
30	2.9	51	18	15	---	19	9.9	13	4.9	2.5	11	6.4
31	3.0	---	28	14	---	19	---	11	---	2.4	8.6	---
TOTAL	139.5	639.3	635	440.8	2010	905	385.6	297.6	175.2	150.4	518.8	789.0
MEAN	4.50	21.3	20.5	14.2	71.8	29.2	12.9	9.60	5.84	4.85	16.7	26.3
MAX	13	111	41	20	372	58	18	21	12	18	114	155
MIN	2.8	3.2	11	9.5	18	19	8.9	5.0	2.7	2.4	2.0	6.4

WTR YR 1986 TOTAL 7086.2 MEAN 19.4 MAX 372 MIN 2.0

03401428 BENNETTS FORK AT MIDDLESBORO, KY.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.
PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: November 1985 to September 1986.
INSTRUMENTATION.--Sediment pumping sampler since Nov. 8, 1985.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 6,490 mg/L, Feb 17, 1986; minimum daily mean, 0 mg/L, Jan. 1, 2, 7, 1986.
SEDIMENT LOADS: Maximum daily, 6,740 tons, Feb 17, 1986; minimum daily, 0.01 ton, Nov. 15, 1985, Jan. 7, 1986.
EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 6,490 mg/L, Feb. 17; minimum daily mean, 0 mg/L, Jan. 1, 2, 7.
SEDIMENT LOADS: Maximum daily, 6,740 tons, Feb. 17, minimum daily, 0.01 ton, Nov. 15, Jan. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 13...	1250	7.8	17.0	--	0	0.0
NOV 22...	1300	22	13.5	450	59	3.6
FEB 18...	1515	208	--	--	552	310
APR 17...	1600	11	9.0	--	1	0.04
MAY 16...	1240	6.4	23.0	650	6	0.11
JUN 24...	1320	3.5	27.5	680	2	0.02
AUG 11...	1145	76	20.0	290	2410	494
AUG 11...	1200	69	--	--	1950	363
AUG 29...	1255	15	17.0	515	22	0.9
SEP 01...	1305	297	18.0	280	571	458
SEP 01...	1350	230	--	--	606	376

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SED. TOTAL, FALL DIAM. % FINER THAN .002 MM	SED. TOTAL, FALL DIAM. % FINER THAN .004 MM	SED. TOTAL, FALL DIAM. % FINER THAN .008 MM	SED. TOTAL, FALL DIAM. % FINER THAN .016 MM	SED. TOTAL, FALL DIAM. % FINER THAN .031 MM	SED. TOTAL, FALL DIAM. % FINER THAN .062 MM	SED. TOTAL, FALL DIAM. % FINER THAN .125 MM	SED. TOTAL, FALL DIAM. % FINER THAN .250 MM	SED. TOTAL, FALL DIAM. % FINER THAN .500 MM
AUG 11...	1200	44	60	72	77	77	99	99	100	--
SEP 01...	1350	27	42	58	71	84	94	97	99	100

03401428 BENNETTS FORK AT MIDDLESBORO, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	6.0	0	.00	3.2	---	.00	41	18	2.0
2	9.0	0	.00	4.0	---	.00	33	13	1.2
3	13	0	.00	10	---	.00	28	7	.51
4	8.0	0	.00	27	---	.00	24	3	.18
5	5.8	0	.00	60	---	.00	25	10	.70
6	4.8	0	.00	34	---	.00	22	5	.32
7	4.0	0	.00	20	---	.00	19	2	.13
8	3.6	0	.00	13	3	.12	19	2	.09
9	3.3	0	.00	12	3	.10	17	3	.15
10	3.2	0	.00	11	3	.08	16	5	.21
11	3.1	0	.00	9.5	2	.05	17	6	.29
12	2.9	0	.00	8.6	1	.02	16	6	.25
13	2.8	0	.00	8.2	1	.02	23	45	2.8
14	3.1	0	.00	6.6	1	.02	35	5	.51
15	4.0	0	.00	5.8	1	.01	27	4	.31
16	3.5	0	.00	9.0	1	.03	23	4	.25
17	3.2	0	.00	12	4	.12	22	4	.21
18	3.0	0	.00	9.0	8	.19	19	3	.18
19	2.9	0	.00	8.0	7	.15	18	25	1.2
20	2.9	0	.00	7.4	6	.12	17	6	.28
21	5.4	0	.00	7.0	20	.37	17	3	.15
22	8.0	0	.00	23	60	3.7	16	9	.37
23	4.5	0	.00	20	12	.65	16	3	.11
24	5.8	0	.00	17	5	.25	15	3	.11
25	4.7	0	.00	15	3	.12	14	4	.13
26	3.7	0	.00	13	2	.08	14	19	.72
27	3.4	0	.00	18	58	3.3	13	5	.16
28	3.1	0	.00	86	736	171	12	1	.04
29	2.9	0	.00	111	175	52	11	20	.59
30	2.9	0	.00	51	37	5.1	18	13	.85
31	3.0	0	.00	---	---	---	28	164	12
TOTAL	139.5	---	0.00	639.3	---	237.60	635	---	27.00
		JANUARY			FEBRUARY			MARCH	
1	20	6	.32	18	16	.93	32	2	.18
2	18	0	.02	25	17	1.2	30	3	.21
3	16	0	.02	60	137	27	29	4	.30
4	15	1	.05	57	40	6.3	28	4	.33
5	14	1	.03	114	376	131	27	5	.34
6	14	2	.06	92	58	14	26	4	.31
7	13	0	.01	87	36	8.4	24	4	.27
8	13	3	.12	60	26	4.2	23	4	.22
9	12	19	.60	48	12	1.5	21	3	.18
10	12	3	.11	42	10	1.2	21	3	.14
11	11	1	.04	37	7	.73	21	4	.20
12	11	1	.03	32	5	.46	20	5	.29
13	10	1	.03	29	5	.35	19	33	1.7
14	10	5	.13	31	11	.94	30	29	2.4
15	9.8	1	.03	29	6	.50	37	65	6.1
16	9.5	1	.03	33	2450	294	45	21	2.5
17	9.5	2	.05	361	6490	6740	40	15	1.6
18	10	3	.10	372	1310	2070	35	10	.94
19	20	37	2.2	115	51	16	36	62	6.0
20	17	3	.14	63	40	6.9	58	14	2.5
21	15	1	.05	49	34	4.5	43	6	.66
22	16	1	.04	44	30	3.5	37	3	.30
23	16	1	.03	39	16	1.8	34	2	.19
24	15	1	.05	37	9	.92	31	2	.20
25	16	1	.06	34	7	.65	28	3	.23
26	17	2	.09	33	10	.87	25	4	.27
27	19	25	1.5	35	19	1.9	23	4	.25
28	17	155	7.1	34	8	.79	23	4	.23
29	16	19	.82	---	---	---	21	3	.18
30	15	11	.44	---	---	---	19	3	.15
31	14	8	.32	---	---	---	19	8	.40
TOTAL	440.8	---	14.62	2010	---	9340.54	905	---	29.87

CUMBERLAND RIVER BASIN

03401428 BENNETTS FORK AT MIDDLESBORO, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			MAY			JUNE	
1	18	4	.21	9.5	10	.25	9.3	8	.20
2	17	4	[illegible]	9.3	8	.20	8.7	8	.18
3	17	11	.50	8.7	6	.14	8.0	8	.17
4	16	15	.64	8.2	5	.11	7.6	9	.19
5	15	5	.20	8.6	13	.30	8.1	25	.55
6	16	32	1.4	8.5	12	.29	7.5	28	.56
7	15	8	.31	8.6	7	.16	6.6	25	.45
8	14	2	.09	8.6	4	.09	12	48	1.7
9	14	2	.07	8.0	3	.07	8.1	35	.76
10	13	2	.07	7.5	9	.17	7.3	16	.31
11	13	2	.07	6.6	9	.15	6.4	18	.29
12	13	2	.08	6.8	8	.14	5.7	24	.38
13	13	2	.07	8.2	9	.22	5.0	16	.22
14	12	3	.11	8.0	5	.13	4.4	19	.23
15	12	3	.09	7.7	1	.03	4.3	25	.29
16	12	3	.06	7.8	184	5.2	3.8	20	.21
17	12	3	.10	7.4	89	1.8	3.4	12	.12
18	11	7	.20	6.6	30	.53	4.4	10	.12
19	9.5	19	.50	6.5	17	.29	4.4	9	.10
20	10	11	.31	5.8	12	.18	4.4	7	.08
21	15	8	.32	5.6	9	.13	3.8	6	.06
22	13	8	.26	5.0	6	.08	3.4	6	.05
23	12	7	.23	14	448	31	3.4	5	.05
24	11	7	.20	13	695	26	3.2	9	.08
25	9.9	6	.17	12	62	2.2	2.7	3	.02
26	9.4	6	.15	9.0	22	.55	2.7	3	.02
27	8.9	6	.14	21	289	17	5.1	15	.36
28	12	76	3.6	21	73	4.3	12	51	2.1
29	12	25	.81	16	29	1.2	4.9	25	.33
30	9.9	12	.31	13	18	.63	4.9	32	.61
31	---	---	---	11	10	.29	---	---	---
TOTAL	385.6	---	11.49	297.8	---	93.83	175.5	---	10.79
		JULY			AUGUST			SEPTEMBER	
1	4.7	35	.44	2.7	7	.05	144	588	363
2	8.0	83	2.2	2.5	7	.05	155	392	312
3	5.3	52	.76	2.2	7	.04	99	107	38
4	3.4	33	.30	2.3	7	.05	49	13	1.7
5	3.1	20	.17	2.3	7	.04	38	10	1.0
6	3.1	8	.06	2.0	6	.03	28	7	.56
7	2.7	5	.04	8.0	63	3.0	21	2	.14
8	2.5	4	.03	4.2	78	.93	19	9	.50
9	2.7	4	.03	2.7	31	.22	16	3	.14
10	6.4	227	5.1	4.0	225	5.2	14	3	.11
11	7.8	112	2.7	47	894	248	12	2	.08
12	5.8	31	.53	12	77	2.6	13	8	.28
13	5.6	29	.51	6.3	19	.35	11	4	.13
14	18	87	12	4.4	11	.13	9.4	3	.08
15	14	51	2.4	8.2	177	6.3	8.2	3	.07
16	7.7	10	.21	13	857	57	8.2	3	.07
17	5.2	29	.39	35	1080	149	8.1	4	.09
18	4.6	63	.78	15	51	2.0	8.7	6	.15
19	4.2	48	.55	9.4	38	.98	8.3	4	.09
20	3.4	37	.34	114	1560	1340	9.0	10	.29
21	3.4	34	.31	70	1170	362	9.7	18	.51
22	3.1	33	.27	21	236	15	7.7	9	.19
23	3.1	31	.26	14	26	1.0	16	274	18
24	3.1	29	.24	10	25	.69	23	218	18
25	3.1	29	.25	7.4	25	.49	13	9	.33
26	3.2	37	.32	5.7	25	.38	10	6	.16
27	3.0	23	.18	24	739	140	8.6	4	.09
28	2.7	15	.11	34	58	5.5	8.4	5	.12
29	2.7	10	.07	16	22	.99	7.3	6	.12
30	2.5	8	.05	11	10	.29	6.4	4	.07
31	2.4	8	.05	8.6	6	.13	---	---	---
TOTAL	150.5	---	31.65	518.9	---	2342.44	789.0	---	756.07
YEAR	7086.3		12895.90						

BEST COPY AVAILABLE

03402000 YELLOW CREEK NEAR MIDDLESBORO, KY

LOCATION.--Lat 36°40'05", long 83°41'19", Bell County, Hydrologic Unit 05130101, on left bank 35 ft downstream from bridge on U.S. Highway 25E, 1.2 mi downstream from Browne Branch, 4.6 mi north of Middlesboro, and at mile 11.4.

DRAINAGE AREA.--60.6 mi . Area at site used prior to Oct. 1, 1970, 58.2 mi^2 and at site used Oct. 1, 1970 to Sept. 30, 1973, 62.8^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1940 to current year.

REVISED RECORDS.--WSP 953: 1941(M). WSP 973: 1942(M). WSP 1436: Drainage area. WRD KY 1969: 1965(M), 1967(M).

GAGE.--Water-stage recorder. Datum of gage is 1,097.99 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 7, 1941, nonrecording gage and Jan. 7, 1941 to Sept. 30, 1970, water-stage recorder, at site 1.7 mi upstream at datum 6.21 ft higher. Oct. 1, 1970 to Sept. 30, 1973, nonrecording gage at site 2.8 mi downstream at datum 29.37 ft lower.

REMARKS.--Estimated daily discharges: Dec. 18-22, 25, 26, 28-31, and Jan. 6-16, 27-31. Records good except for estimated daily discharges, which are fair. Occasional regulation from Fern Lake. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--46 years, 116 ft^3/s, 25.99 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft^3/s. Apr. 4, 1977, gage height, 23.35 ft; no flow for part of Sept. 26, 1952 (caused by construction work above gage).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of about 21.4 ft by U.S. Army Corps of Engineers, site and datum then in use; flood of Feb. 3, 1939, reached a stage of 18.5 ft, from floodmarks, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 18	0400	*3,880	*13.07	No other peak greater than base discharge.			

Minimum daily discharge, 5.9 ft^3/s, Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	12	187	63	55	123	49	26	21	9.6	7.6	808
2	30	15	140	54	86	113	46	25	22	15	6.9	779
3	45	46	100	57	258	110	44	23	18	14	6.4	682
4	26	281	86	52	313	98	41	22	16	9.3	6.0	218
5	18	313	87	50	647	89	38	21	16	8.0	6.0	125
6	15	140	79	46	552	89	42	21	14	7.4	5.9	77
7	12	86	63	42	582	76	52	20	13	7.1	13	47
8	13	58	58	38	351	64	39	22	42	7.2	15	45
9	12	43	54	36	227	62	36	19	19	11	7.7	29
10	12	36	49	35	172	59	34	18	17	36	7.2	23
11	12	31	47	33	146	68	32	17	14	49	264	19
12	11	28	55	32	105	62	31	17	13	33	41	30
13	11	26	89	31	89	119	30	25	12	34	20	18
14	12	25	91	30	83	162	29	22	11	108	15	15
15	14	23	81	29	116	376	29	20	10	134	14	14
16	14	29	77	27	116	294	28	17	9.0	26	25	14
17	12	36	69	26	1830	210	30	18	8.4	18	117	12
18	12	27	64	27	2590	161	28	15	8.2	14	40	12
19	11	25	58	78	753	382	25	15	7.9	12	22	14
20	11	24	51	65	423	266	26	15	7.5	11	451	13
21	20	24	48	52	285	197	52	14	7.1	10	728	16
22	19	95	46	54	226	152	39	13	6.9	9.5	63	12
23	15	82	46	53	177	126	32	44	6.9	8.8	33	21
24	23	64	43	51	161	105	30	66	7.0	8.2	22	33
25	17	52	40	56	138	92	30	37	7.2	7.9	16	18
26	14	45	38	65	122	82	29	24	7.3	8.1	13	14
27	13	61	36	62	158	76	27	55	9.7	7.8	49	13
28	12	476	35	60	141	67	35	66	47	7.3	100	11
29	11	756	29	58	---	61	37	44	13	7.2	31	11
30	11	293	25	54	---	57	27	31	10	6.8	19	9.7
31	12	---	41	51	---	53	---	26	---	6.5	15	---
TOTAL	493	3252	2012	1467	10902	4051	1047	818	421.1	651.7	2179.7	3152.7
MEAN	15.9	108	64.9	47.3	389	131	34.9	26.4	14.0	21.0	70.3	105
MAX	45	756	187	78	2590	382	52	66	47	134	728	808
MIN	11	12	25	26	55	53	25	13	6.9	6.5	5.9	9.7
CFSM	.26	1.78	1.07	.78	6.42	2.16	.58	.44	.23	.35	1.16	1.73
IN	.30	2.00	1.24	.90	6.69	2.49	.64	.50	.26	.40	1.34	1.94

CAL YR 1985	TOTAL	32269.7	MEAN	88.4	MAX	1340	MIN	9.3	CFSM 1.46	IN	19.81
WTR YR 1986	TOTAL	30447.2	MEAN	83.4	MAX	2590	MIN	5.9	CFSM 1.38	IN	18.69

03402000 YELLOW CREEK NEAR MIDDLESBORO, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.
PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: October 1979 to current year.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 4,360 mg/L, Sept. 1, 1982; minimum daily mean, 1 mg/L, Mar. 19-21, 1985.
SEDIMENT LOADS: Maximum daily, 35,400 tons, Aug. 8, 1981; minimum daily, .00 ton, Mar. 15, 1984.
EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,720 mg/L, Aug. 20; minimum daily mean, 5 mg/L, Dec. 9-11.
SEDIMENT LOADS: Maximum daily, 14,600 tons, Feb. 17; minimum daily, 0.30 ton, June 26.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1985						
08...	1045	11	13.5	900	18	0.55
NOV						
26...	1450	46	15.0	--	29	3.6
JAN 1986						
02...	1430	52	2.0	385	5	0.71
FEB						
18...	1410	2120	--	--	627	3590
APR						
04...	1500	40	16.0	510	20	2.2
MAY						
14...	1215	20	19.0	450	58	3.2
JUN						
25...	1210	6.9	26.0	620	18	0.34
AUG						
12...	1200	37	22.0	450	141	14

03402000 YELLOW CREEK NEAR MIDDLESBORO, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	23	41	3.3	12	21	.68	187	22	11
2	30	29	2.4	15	25	1.0	140	17	6.3
3	45	44	7.0	46	51	7.3	100	12	3.1
4	26	41	3.0	281	433	652	86	8	1.8
5	18	29	1.4	313	143	145	87	9	2.3
6	15	23	.90	140	52	20	79	10	2.2
7	12	19	.64	86	39	9.1	63	7	1.1
8	13	25	.86	58	33	5.1	58	6	.87
9	12	44	1.4	43	28	3.2	54	5	.73
10	12	39	1.2	36	25	2.4	49	5	.61
11	12	36	1.1	31	22	1.8	47	5	.71
12	11	34	1.0	28	16	1.4	55	9	1.4
13	11	31	.92	26	15	1.1	89	43	11
14	12	26	.82	25	12	.77	91	15	3.8
15	14	29	1.1	23	8	.53	81	14	3.1
16	14	30	1.2	29	16	1.7	77	13	2.7
17	12	28	.93	36	28	2.8	69	12	2.2
18	12	26	.85	27	22	1.6	64	11	1.8
19	11	24	.74	25	18	1.2	53	9	1.5
20	11	23	.69		14	.93	51	8	1.1
21	20	55	3.3	24	12	.80	48	7	.89
22	19	59	3.1	95	47	13	46	52	6.4
23	15	44	1.8	82	28	6.3	46	47	5.8
24	23	52	3.3	64	21	3.6	43	36	4.1
25	17	42	1.9	52	22	3.0	40	28	3.0
26	14	37	1.4	45	24	3.0	38	51	5.2
27	13	33	1.2	61	41	7.3	36	53	5.1
28	12	30	.99	476	810	2150	35	39	3.7
29	11	28	.85	756	218	636	29	32	2.5
30	11	25	.76	293	23	19	25	25	1.7
31	12	24	.76	---	---	---	41	57	6.3
TOTAL	493	---	50.81	3252	---	3701.61	2012	---	104.01
		JANUARY			FEBRUARY			MARCH	
1	63	42	7.3	55	24	3.9	123	14	4.6
2	54	19	2.7	86	26	5.9	113	14	4.1
3	57	9	1.4	258	1020	955	110	14	4.0
4	52	7	.94	313	758	654	98	13	3.5
5	50	6	.84	647	812	1520	89	13	3.2
6	46	7	.93	552	235	384	89	57	14
7	42	9	1.0	582	148	243	76	33	6.9
8	38	11	1.1	351	57	55	64	29	5.0
9	36	13	1.3	227	30	19	62	27	4.5
10	35	15	1.4	172	20	9.1	59	26	4.1
11	33	16	1.4	146	14	5.4	68	46	8.8
12	32	15	1.3	105	12	3.3	62	27	4.5
13	31	15	1.2	89	8	2.0	119	107	42
14	30	13	1.1	83	16	4.0	162	190	104
15	29	11	.89	116	78	25	376	188	192
16	27	11	.81	116	50	20	294	39	31
17	26	11	.79	1830	1940	14600	210	23	13
18	27	17	1.3	2590	921	7560	161	20	8.7
19	78	114	25	753	296	606	382	216	262
20	65	25	4.5	423	155	181	266	81	58
21	52	15	2.1	285	72	56	197	53	28
22	54	12	1.8	226	50	31	152	39	16
23	53	10	1.4	177	31	15	126	32	11
24	51	8	1.0	161	20	8.9	105	29	8.3
25	56	7	1.0	138	13	4.9	92	27	6.6
26	65	7	1.2	122	11	3.7	82	24	5.3
27	62	7	1.1	158	38	17	76	23	4.7
28	60	6	1.0	141	17	6.4	67	22	4.0
29	58	6	.97	---	---	---	61	21	3.4
30	54	6	.86	---	---	---	57	20	3.0
31	51	6	.82	---	---	---	53	19	2.7
TOTAL	1467	---	70.45	10902	---	26998.5	4051	---	870.9

03402000 YELLOW CREEK NEAR MIDDLESBORO, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT^3/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT^3/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT^3/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			MAY			JUNE	
1	49	18	2.4	26	65	4.6	21	47	2.7
2	46	17	2.1	25	61	4.1	22	50	2.9
3	44	16	1.9	23	58	3.6	18	49	2.3
4	41	16	1.7	22	58	3.4	16	47	2.1
5	38	15	1.5	21	58	3.3	16	46	2.0
6	42	24	3.2	21	58	3.3	14	44	1.7
7	52	40	5.8	20	57	3.1	13	41	1.5
8	39	26	2.7	22	60	3.6	42	124	19
9	36	21	2.0	19	46	2.4	19	72	3.7
10	34	19	1.7	18	33	1.6	17	62	2.9
11	32	18	1.5	17	26	1.2	14	53	2.1
12	31	16	1.4	17	21	.98	13	43	1.5
13	30	15	1.2	25	72	8.5	12	31	.99
14	29	14	1.1	22	65	4.1	11	24	.70
15	29	19	1.5	20	22	1.2	10	19	.51
16	28	26	2.0	17	22	1.0	9.0	16	.39
17	30	26	2.1	18	37	1.9	8.4	16	.36
18	28	26	2.0	15	30	1.2	8.2	26	.57
19	25	27	1.8	15	27	1.1	7.9	37	.79
20	26	28	2.0	15	25	1.0	7.5	33	.68
21	52	120	18	14	23	.88	7.2	30	.59
22	39	100	11	13	21	.74	6.9	29	.53
23	32	71	6.2	44	97	25	6.9	27	.50
24	30	57	4.6	66	99	15	7.1	23	.44
25	30	47	3.8	37	118	12	7.2	19	.37
26	29	42	3.3	24	70	4.5	7.3	15	.30
27	27	36	2.7	55	135	23	9.7	52	2.0
28	35	69	8.8	66	104	20	47	173	30
29	37	94	9.8	44	93	11	13	76	2.6
30	27	70	5.2	31	71	5.9	10	60	1.6
31	---	---	---	26	55	3.8	---	---	---
TOTAL	1047	---	115.0	818	---	177.00	421.3	---	88.32
		JULY			AUGUST			SEPTEMBER	
1	9.6	55	1.4	7.6	45	.91	808	979	3380
2	15	66	3.0	6.9	42	.78	779	758	2550
3	14	36	1.4	6.4	41	.70	682	556	1230
4	9.3	27	.68	6.1	39	.64	218	112	67
5	8.0	26	.57	6.0	38	.62	125	71	24
6	7.5	25	.51	5.9	37	.58	77	64	13
7	7.1	24	.46	13	58	3.8	47	61	7.8
8	7.2	23	.45	15	54	2.4	45	73	9.4
9	11	68	3.9	7.7	46	.95	29	46	3.6
10	36	189	28	7.2	52	1.1	23	46	2.8
11	49	180	28	264	745	1050	19	46	2.4
12	33	103	10	41	161	21	30	91	8.6
13	34	71	11	20	49	2.7	18	30	1.5
14	108	515	632	15	44	1.8	15	24	.99
15	134	608	371	14	45	1.7	14	22	.81
16	26	75	5.5	25	71	7.3	14	19	.72
17	18	49	2.3	117	301	136	12	18	.60
18	14	46	1.8	40	128	14	12	27	.94
19	12	45	1.4	22	65	3.9	14	25	.95
20	11	44	1.2	451	2720	6130	13	22	.76
21	10	44	1.2	728	2590	11100	16	31	1.3
22	9.5	42	1.1	63	63	11	12	26	.82
23	8.8	42	.99	33	46	4.1	21	53	3.6
24	8.3	42	.93	22	39	2.4	33	36	3.5
25	7.9	42	.89	16	32	1.4	18	26	1.2
26	8.1	41	.90	13	28	1.0	14	24	.94
27	7.8	42	.87	49	506	310	13	23	.80
28	7.3	42	.82	100	795	309	11	22	.68
29	7.2	41	.80	31	77	6.3	11	22	.66
30	6.8	41	.75	19	66	3.4	9.7	24	.62
31	6.5	41	.72	15	57	2.4	---	---	---
TOTAL	651.9	---	1114.54	2179.8	---	19131.88	3152.7	---	7319.99
YEAR	30447.7		59743.01						

03403000 CUMBERLAND RIVER NEAR PINEVILLE, KY

LOCATION.--Lat 36°48'48", long 83°45'58", Knox County, Hydrologic Unit 05130101, on downstream side of bridge on U.S. Highway 25E, 0.5 mi south of Flat Lick, 2.4 mi downstream from Greasy Creek, 4.8 mi upstream from Stinking Creek, 5.0 mi northwest of Pineville, and at mile 647.2.

DRAINAGE AREA.--809 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1938 to September 1975, October 1979 to current year.

REVISED RECORDS.--WSP 1053: 1939. WSP 1436: Drainage area. WSP 1910: 1957. WRD KY 1968: 1967.

GAGE.--Water-stage recorder. Datum of gage is 955.45 ft Sandy Hook datum. Prior to June 23, 1939, nonrecording gage 200 ft upstream at same datum. June 23, 1939 to Mar. 19, 1956, water-stage recorder 200 ft upstream at same datum. Auxiliary water-stage recorder 1.9 mi upstream from base gage. May 26, 1943 to Sept. 30, 1975, auxiliary nonrecording gage 1.9 mi upstream from base gage.

REMARKS.--Estimated daily discharges: Dec. 22, 26-31, Jan. 8-16, and Jan. 28-31. Records good, except for estimated discharges. which are poor. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979. Low flow regulated by power plant 1.9 mi upstream.

AVERAGE DISCHARGE.--44 years, 1,383 ft³/s, 23.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,900 ft³/s, Jan. 8, 1946; maximum gage height, 49.77 ft, Dec. 31, 1969; minimum discharge, 5.6 ft³/s, Aug. 14, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1929 reached a stage of 47.3 ft discharge, 51,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 18	1000	*25,400	*36.06	No other peak greater than base discharge.			

Minimum daily discharge, 62 ft³/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	115	2840	554	683	2550	631	492	704	139	73	1940
2	204	117	2260	607	902	2220	597	466	782	128	72	2430
3	233	169	1640	600	2230	1960	577	437	588	152	70	2710
4	324	829	1250	646	5060	1690	551	401	404	153	66	1280
5	233	2300	1120	626	4680	1490	518	383	354	140	65	852
6	176	1880	1080	576	5240	1390	500	371	340	122	63	640
7	149	1490	905	555	6810	1290	559	354	320	106	62	467
8	132	1070	753	530	5240	1150	515	338	384	96	69	382
9	118	763	695	490	3200	1010	477	314	383	92	94	329
10	120	606	638	480	2420	983	452	289	330	238	87	260
11	125	522	594	470	2010	1130	430	270	426	538	451	212
12	123	396	618	460	1630	1230	406	253	381	570	560	289
13	119	329	889	440	1370	1430	394	284	334	357	350	325
14	115	284	1310	400	1230	2030	380	454	294	688	196	282
15	117	267	1420	390	1230	4480	373	698	256	711	137	217
16	124	266	1260	365	1160	5100	360	722	217	449	115	195
17	128	356	1080	315	6500	3320	363	1010	194	274	194	181
18	125	373	928	307	22800	2480	366	901	178	207	251	164
19	120	350	757	458	11300	2550	344	661	161	167	152	185
20	115	317	680	773	9020	2410	323	568	150	144	853	242
21	118	326	650	777	5130	1970	445	549	139	127	1700	261
22	167	446	620	750	3510	1700	537	562	127	120	542	364
23	179	706	612	909	3080	1530	482	434	120	127	301	272
24	162	766	599	961	2760	1390	447	610	121	115	216	475
25	162	663	556	934	2480	1180	434	645	118	102	171	675
26	145	579	500	962	2090	974	428	650	108	94	139	455
27	140	706	460	926	2330	910	424	695	102	87	141	337
28	133	3530	430	870	2760	846	424	1190	238	85	315	263
29	125	10800	380	800	---	770	533	1260	269	81	321	249
30	121	5760	370	710	---	714	555	1070	186	80	238	216
31	117	---	360	690	---	671	---	864	---	73	183	---
TOTAL	4571	37081	28254	19331	118855	54548	13825	18195	8708	6562	8247	17149
MEAN	147	1236	911	624	4245	1760	461	587	290	212	266	572
MAX	324	10800	2840	962	22800	5100	631	1260	782	711	1700	2710
MIN	102	115	360	307	683	671	323	253	102	73	62	164
CFSM	.18	1.53	1.13	.77	5.25	2.18	.57	.73	.36	.26	.33	.71
IN	.21	1.71	1.30	.89	5.47	2.51	.64	.84	.40	.30	.38	.79

CAL YR 1985 TOTAL 370115 MEAN 1014 MAX 10800 MIN 80 CFSM 1.25 IN 17.02
WTR YR 1986 TOTAL 335326 MEAN 919 MAX 22800 MIN 62 CFSM 1.14 IN 15.42

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: October 1979 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,700 mg/L, May 7, 1984; minimum daily mean, 1 mg/L, May 14, 1982, Jan. 21, 22, 1984.
SEDIMENT LOADS: Maximum daily, 244,000 tons, May 7, 1984; minimum daily, 0.47 ton, Jan. 13, 1981.

EXTREMES FOR CURRENT RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,750 mg/L, Nov. 29; minimum daily mean, 3 mg/L, on Jan. 16, 17, Apr. 27.
SEDIMENT LOADS: Maximum daily, 86,500 tons, Feb. 18; minimum daily, 0.73 ton, July 31.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1985						
07...	1635	142	15.5	570	16	6.1
NOV						
21...	1150	291	12.0	415	38	30
JAN 1986						
02...	1320	574	1.0	400	7	11
FEB						
26...	1300	2150	5.5	280	72	418
APR						
08...	1215	510	19.5	390	21	29
MAY						
16...	1310	683	19.5	--	720	1330
JUN						
26...	1300	101	25.5	490	14	3.8
AUG						
18...	1250	252	27.0	560	77	52

03403000 CUMBERLAND RIVER NEAR PINEVILLE, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	102	14	4.0	115	17	5.3	2840	179	1380
2	204	21	11	117	17	5.5	2260	104	636
3	233	12	7.9	169	27	12	1640	51	230
4	324	17	15	829	134	527	1250	41	136
5	233	13	8.3	2300	330	2070	1120	37	111
6	176	14	6.6	1880	171	685	1080	30	88
7	149	15	6.0	1490	83	337	905	20	49
8	132	16	5.6	1070	43	127	753	11	23
9	118	10	3.2	763	30	62	695	9	17
10	120	9	3.0	606	30	48	638	9	15
11	125	11	3.9	522	29	41	594	8	13
12	123	11	3.7	396	25	26	618	10	16
13	119	11	3.5	329	20	18	889	25	64
14	115	10	3.2	284	17	13	1310	52	185
15	117	11	3.4	267	15	11	1420	49	189
16	124	13	4.5	266	16	12	1260	23	80
17	128	14	4.7	356	22	21	1080	17	50
18	125	13	4.5	373	24	24	928	14	35
19	120	13	4.2	350	25	23	757	11	22
20	115	12	3.9	317	25	21	680	9	16
21	118	12	3.9	326	31	30	650	9	16
22	167	30	14	446	43	52	620	13	23
23	179	22	11	706	61	117	612	14	23
24	162	19	8.3	766	30	62	599	10	16
25	162	24	11	663	29	51	556	10	14
26	145	22	8.7	579	26	41	500	9	12
27	140	23	8.6	706	40	81	460	7	9.3
28	133	22	8.0	3530	948	15600	430	7	8.0
29	125	22	7.3	10800	1750	61400	380	7	6.8
30	121	19	6.1	5760	386	6420	370	6	6.2
31	117	17	5.5	---	---	---	360	6	5.7
TOTAL	4571	---	202.5	37081	---	88142.8	28254	---	3495
		JANUARY			FEBRUARY			MARCH	
1	554	6	9.6	683	19	36	2550	55	379
2	607	7	12	902	51	129	2220	36	215
3	600	9	14	2230	264	1970	1960	25	133
4	646	10	17	5060	412	5650	1690	25	112
5	626	19	33	4680	229	2980	1490	25	101
6	576	51	79	5240	241	3440	1390	20	77
7	555	28	42	6810	346	6470	1290	16	55
8	530	5	7.1	5240	127	1860	1150	12	39
9	490	4	5.8	3200	64	553	1010	10	26
10	480	5	6.4	2420	39	253	983	10	28
11	470	5	6.9	2010	36	193	1130	26	83
12	460	6	7.5	1630	35	155	1230	27	88
13	440	6	7.7	1370	35	128	1430	45	180
14	400	6	5.9	1230	34	113	2030	124	714
15	390	4	4.6	1230	33	111	4480	411	5240
16	365	3	3.2	1160	35	112	5100	324	4560
17	315	3	2.4	6500	374	12200	3320	127	1150
18	307	7	5.4	22800	1320	86500	2480	94	629
19	458	14	20	11300	469	20100	2550	107	743
20	773	40	82	9020	377	9240	2410	89	582
21	777	21	44	5130	232	3220	1970	62	330
22	750	19	38	3510	185	1750	1700	36	167
23	909	36	89	3080	158	1310	1530	17	70
24	961	23	59	2760	128	950	1390	12	44
25	934	17	42	2480	102	688	1180	11	34
26	962	14	35	2090	74	418	974	10	25
27	926	10	26	2330	82	523	910	9	21
28	870	7	16	2760	87	653	846	8	17
29	800	4	8.1	---	---	---	770	7	15
30	710	19	37	---	---	---	714	7	14
31	690	15	28	---	---	---	671	7	13
TOTAL	19331	---	793.6	118855	---	161705	54548	---	15884

CUMBERLAND RIVER BASIN

03403000 CUMBERLAND RIVER NEAR PINEVILLE, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			MAY			JUNE	
1	631	7	12	492	17	23	704	77	147
2	597	7	11	466	14	18	782	322	688
3	577	7	11	437	13	15	586	84	139
4	551	6	9.1	401	12	13	404	39	42
5	518	5	7.5	383	11	11	354	57	55
6	500	7	9.6	371	10	9.7	340	56	52
7	559	21	31	354	9	8.2	320	28	24
8	515	23	32	338	8	7.4	384	35	36
9	477	16	21	314	8	6.8	383	36	38
10	452	11	13	289	7	5.6	330	25	22
11	430	9	11	270	5	3.9	426	41	48
12	406	9	10	253	4	2.4	381	26	27
13	394	10	10	284	25	22	334	18	16
14	380	11	11	454	73	92	294	17	13
15	373	12	12	698	448	1200	256	15	11
16	360	13	13	722	734	1440	217	16	9.1
17	363	14	14	1010	681	1880	194	15	7.7
18	366	14	14	901	390	983	178	13	6.4
19	344	14	13	661	153	275	161	11	4.6
20	323	12	10	568	89	137	150	10	4.1
21	445	15	18	549	82	122	139	10	3.6
22	537	15	21	562	85	129	127	9	3.1
23	482	10	13	434	62	73	120	9	2.7
24	447	8	9.6	610	90	152	121	13	4.4
25	434	7	7.7	645	61	107	118	15	4.7
26	428	5	5.9	650	55	96	108	12	3.4
27	424	3	3.8	695	85	170	102	10	2.8
28	424	7	8.7	1190	164	524	238	62	44
29	533	30	44	1260	130	441	269	55	42
30	555	24	36	1070	119	344	186	19	9.7
31	---	---	---	864	94	220	---	---	---
TOTAL	13825	---	442.9	18195	---	8531.0	8708	---	1510.3
		JULY			AUGUST			SEPTEMBER	
1	139	11	4.1	73	4	.79	1940	686	6410
2	128	10	3.6	72	6	1.2	2430	804	5690
3	152	21	9.0	70	14	2.6	2710	572	3730
4	153	19	8.0	66	22	3.8	1280	300	1130
5	140	15	5.6	65	23	4.0	852	97	221
6	122	9	2.8	63	20	3.5	640	79	137
7	106	5	1.5	62	17	2.9	467	48	61
8	96	4	1.1	69	26	5.0	382	46	48
9	92	8	2.6	94	31	7.9	329	44	39
10	238	168	114	87	26	6.2	260	33	23
11	538	226	339	451	140	297	212	27	15
12	570	93	151	560	169	255	289	76	60
13	357	46	46	350	75	73	325	79	69
14	688	143	274	196	62	33	282	52	40
15	711	158	311	137	45	17	217	32	19
16	449	122	149	115	38	12	195	39	20
17	274	87	65	194	80	48	181	33	16
18	207	65	36	251	90	65	164	31	14
19	167	46	21	152	38	16	185	39	20
20	144	34	13	853	278	796	242	50	33
21	127	41	14	1700	300	1550	261	39	28
22	120	39	13	542	127	187	364	48	49
23	127	37	13	301	99	81	272	29	21
24	115	27	8.5	216	80	47	475	113	181
25	102	18	4.9	171	66	30	675	129	248
26	94	11	2.7	139	58	22	455	59	73
27	87	6	1.3	141	55	21	337	55	49
28	85	4	.94	315	145	140	263	53	37
29	81	4	.85	321	115	99	249	64	44
30	80	4	.82	238	102	65	216	54	31
31	73	4	.73	183	87	43	---	---	---
TOTAL	6562	---	1618.04	8247	---	3934.79	17149	---	18556
YEAR	335326		304815.93						

BEST COPY AVAILABLE

03403500 CUMBERLAND RIVER AT BARBOURVILLE, KY

LOCATION.--Lat 36°51'45", long 83°53'13", Knox County, Hydrologic Unit 05130101, on right bank 100 ft upstream from bridge on State Highway 11, at Barbourville, 0.4 mi upstream from Richland Creek, and at mile 635.2.

DRAINAGE AREA.--960 mi²

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1922 to September 1931, April 1948 to current year. Monthly discharge only April to June 1948, published in WSP 1306.

REVISED RECORD.--WSP 603: 1923-24. WSP 1336: 1923(M), 1927, 1929, 1950-51. WSP 1436: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 942.97 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1931, nonrecording gage at site 50 ft downstream at datum 1.0 ft higher. July 1, 1948 to Oct. 17, 1975, nonrecording gage at sites, 50 ft downstream July 1, 1948 to Mar. 21, 1968, and 100 ft downstream Mar. 22, 1968 to Oct. 17, 1975. Since Oct. 1, 1957, auxiliary water-stage recorder 11.7 mi upstream from base gage.

REMARKS.--Estimated daily discharges: Dec. 22, 23, 25-30, Jan. 8-16, 27-31, and Feb. 8-12. Records good, except for estimated discharges, which are fair. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979. Diversion above station by city of Barbourville for municipal water supply.

AVERAGE DISCHARGE.--47 years, 1,752 ft³/s, 24.78 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,100 ft³/s, Apr. 6, 1977; maximum gage height, 45.91 ft, Apr. 6, 1977; minimum discharge observed, 0.2 ft³/s, Oct. 5, 1930, gage height, -0.25 ft, datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1946 reached a stage of 42.8 ft, present datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 18,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 19	0100	*23,200	*29.24	No other peak greater than base discharge.			

Minimum daily discharge, 88 ft³/s, Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	131	4390	592	877	2880	778	556	756	147	100	1830
2	300	132	2540	702	1060	2540	737	518	800	127	100	3180
3	317	172	2010	692	2270	2300	700	492	664	132	98	2880
4	387	792	1510	746	6990	2040	671	456	448	150	95	1570
5	309	2910	1350	723	6780	1810	629	432	359	145	89	1070
6	226	2450	1310	680	7510	1670	599	415	357	132	89	811
7	187	1840	1130	657	8590	1560	657	395	316	116	89	596
8	164	1350	935	640	5000	1400	632	382	388	106	88	459
9	147	943	863	580	3500	1220	569	361	416	110	110	396
10	140	739	795	540	2700	1170	541	332	334	281	126	320
11	145	611	736	530	2300	1330	517	311	411	579	258	248
12	144	485	756	510	1990	1550	490	286	421	657	793	305
13	140	365	1110	500	1690	1690	477	309	360	392	474	359
14	135	321	1700	470	1510	2200	463	499	300	639	265	348
15	141	296	1820	450	1510	5300	456	631	258	854	184	262
16	160	291	1600	400	1460	7640	440	887	208	557	152	218
17	166	390	1350	391	5940	4760	433	995	186	353	180	204
18	154	434	1150	376	20900	2920	443	1020	174	268	300	188
19	145	412	947	553	17300	2740	428	764	161	211	198	182
20	136	366	836	1030	11500	2670	401	647	150	182	716	231
21	145	339	798	1100	8730	2260	493	583	146	164	1780	264
22	167	474	770	1020	5480	1990	649	622	134	149	724	374
23	209	725	760	1140	3640	1820	596	473	127	152	374	322
24	187	847	735	1200	3040	1650	540	613	119	155	257	381
25	181	754	700	1170	2770	1450	504	698	118	133	205	790
26	168	660	650	1200	2360	1200	488	709	112	127	170	566
27	159	786	600	1190	2530	1110	478	698	106	118	156	407
28	151	3660	570	1120	3080	1040	469	1150	177	113	280	319
29	144	12400	540	1030	---	948	570	1340	261	111	379	272
30	138	9340	480	960	---	877	622	1160	191	108	283	243
31	133	---	438	890	---	824	---	941	---	105	220	---
TOTAL	5601	45415	35879	23782	143007	66559	16470	19675	8958	7573	9332	19595
MEAN	181	1514	1157	767	5107	2147	549	635	299	244	301	653
MAX	387	12400	4390	1200	20900	7640	778	1340	800	854	1780	3180
MIN	133	131	438	376	877	824	401	286	106	105	88	182
CFSM	.19	1.58	1.21	.80	5.32	2.24	.57	.66	.31	.25	.31	.68
IN	.22	1.76	1.39	.92	5.54	2.58	.64	.76	.35	.29	.36	.76

CAL YR 1985 TOTAL 461885 MEAN 1265 MAX 12400 MIN 113 CFSM 1.32 IN 17.90
WTR YR 1986 TOTAL 401846 MEAN 1101 MAX 20900 MIN 88 CFSM 1.15 IN 15.57

03403500 CUMBERLAND RIVER AT BARBOURVILLE, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to current year.
PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: October 1979 to current year.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,140 mg/L, May 7, 1984; minimum daily mean, 1 mg/L, Jan. 21, 22, 1984 and Jan. 29, 30, 1985, Apr. 4-6, 14-19, 26, 1986.
SEDIMENT LOADS: Maximum daily, 182,000 tons, May 8, 1984; minimum daily, 0.83 ton, July 8, 1986.
EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,400 mg/L, Feb. 18; minimum daily, 1 mg/L, Apr. 4-6, 14-19, 26.
SEDIMENT LOADS: Maximum daily, 79,300 tons, Feb. 18; minimum daily, 0.83 tons, July 8.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1985						
07...	1255	183	15.0	550	16	7.9
NOV						
26...	1145	661	--	--	28	50
JAN 1986						
06...	1345	665	3.5	310	5	9.0
FEB						
12...	1400	2010	2.5	225	26	141
MAR						
17...	1535	4130	10.0	170	137	1530
APR						
04...	1255	663	16.5	410	0	0
MAY						
19...	1330	749	19.5	340	113	229
JUL						
01...	1135	147	27.0	515	20	7.9
AUG						
18...	1315	345	24.5	525	57	53

03403500 CUMBERLAND RIVER AT BARBOURVILLE, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	176	18	9.3	131	13	4.6	4390	242	2880
2	300	21	17	132	13	4.7	2540	154	1060
3	317	20	17	172	18	8.7	2010	61	337
4	387	25	27	792	109	415	1510	45	184
5	309	19	16	2910	415	3300	1350	36	132
6	226	17	10	2450	201	1340	1310	27	94
7	187	16	8.2	1840	119	595	1130	15	46
8	164	16	7.1	1350	76	278	935	8	20
9	147	13	5.3	943	43	112	863	7	15
10	140	12	4.6	739	25	51	795	6	14
11	145	14	5.5	611	20	33	736	6	11
12	144	14	5.4	485	23	29	756	6	13
13	140	13	4.8	365	23	22	1110	33	108
14	135	11	4.1	321	20	17	1700	84	389
15	141	10	3.7	296	15	12	1820	73	359
16	160	12	5.2	291	14	11	1600	37	161
17	166	13	5.9	390	28	30	1350	22	82
18	154	13	5.3	434	29	34	1150	14	44
19	145	13	5.1	412	24	27	947	7	18
20	136	14	5.1	366	21	20	836	4	10
21	145	18	7.1	339	18	16	798	4	7.6
22	167	17	7.8	474	28	36	770	6	12
23	209	18	10	725	37	74	760	12	25
24	187	16	8.2	847	30	68	735	9	17
25	181	19	9.0	754	28	56	700	8	14
26	168	20	9.0	660	27	47	650	13	23
27	159	19	8.2	786	45	102	600	12	20
28	151	18	7.5	3660	631	10300	570	10	15
29	144	18	7.0	12400	1150	38600	540	8	12
30	138	16	5.8	9340	377	9500	460	4	5.2
31	133	13	4.8	---	---	---	438	3	3.6
TOTAL	5601	---	256.0	45415	---	65143.0	35879	---	6131.4
		JANUARY			FEBRUARY			MARCH	
1	592	9	15	877	10	24	2880	52	408
2	702	10	19	1060	25	77	2540	32	221
3	692	7	12	2270	315	2610	2300	25	157
4	746	11	21	6990	538	9890	2040	27	147
5	723	6	12	6780	185	3460	1810	27	131
6	680	4	7.3	7510	179	3710	1670	23	106
7	657	3	5.4	8590	275	6390	1560	20	84
8	640	3	5.1	5000	97	1310	1400	15	57
9	580	6	9.1	3500	45	429	1220	13	42
10	540	8	11	2700	36	260	1170	12	37
11	530	6	8.1	2300	34	212	1330	30	110
12	510	4	6.0	1990	34	182	1550	46	190
13	500	3	4.6	1690	33	151	1690	63	295
14	470	3	3.7	1510	32	131	2200	124	751
15	450	3	3.5	1510	31	125	5300	533	8790
16	400	3	3.3	1460	32	126	7640	310	6390
17	391	3	3.5	5940	149	2210	4760	128	1650
18	376	4	4.3	20900	1400	79300	2920	102	800
19	553	24	41	17300	385	18000	2740	87	643
20	1030	45	124	11500	450	14000	2670	78	561
21	1100	27	79	8730	266	6270	2260	49	302
22	1020	18	49	5480	230	3210	1990	24	127
23	1140	19	59	3640	185	1840	1820	14	70
24	1200	20	64	3040	98	803	1650	12	53
25	1170	12	38	2770	88	659	1450	11	44
26	1200	9	30	2360	62	397	1200	10	33
27	1190	8	26	2530	87	616	1110	9	27
28	1120	3	8.1	3080	105	867	1040	8	22
29	1030	6	17	---	---	---	948	7	18
30	960	17	43	---	---	---	877	7	16
31	890	13	32	---	---	---	824	6	14
TOTAL	23782	---	764.0	143007	---	157259	66559	---	22296

03403500 CUMBERLAND RIVER AT BARBOURVILLE, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			MAY			JUNE	
1	778	6	12	556	14	21	756	59	121
2	737	4	8.6	518	10	14	800	68	149
3	700	3	5.4	492	8	11	664	45	81
4	671	1	2.1	456	7	9.1	448	42	51
5	629	1	2.4	432	7	8.2	359	42	40
6	599	1	2.2	415	7	7.5	357	46	45
7	657	12	21	395	7	7.0	316	44	37
8	632	12	20	382	6	6.5	388	54	57
9	569	8	13	361	6	5.9	416	56	63
10	541	8	11	332	6	5.0	334	27	24
11	517	6	8.3	311	5	4.4	411	28	32
12	490	4	4.8	286	5	3.8	421	18	20
13	477	2	2.0	309	20	18	360	14	13
14	463	1	1.8	499	37	49	300	12	9.5
15	456	1	1.7	631	60	160	258	14	9.7
16	440	1	1.5	887	206	501	208	14	7.6
17	433	1	1.4	995	278	791	186	11	5.7
18	443	1	1.5	1020	154	427	174	10	4.6
19	428	1	1.6	764	113	235	161	9	3.7
20	401	2	1.7	647	98	170	150	8	3.1
21	493	7	10	583	87	137	146	8	3.0
22	649	12	21	622	86	145	134	9	3.3
23	596	4	6.0	473	58	74	127	10	3.4
24	540	3	3.7	613	67	115	119	9	2.8
25	504	2	3.0	698	72	136	118	7	2.2
26	488	1	1.7	709	65	[illegible]	112	6	1.9
27	478	2	2.1	698	88	170	106	6	1.6
28	469	5	6.6	1150	116	369	177	19	10
29	570	20	31	1340	140	506	261	27	20
30	622	21	35	1160	122	382	191	13	7.0
31	---	---	---	941	89	226	---	---	---
TOTAL	16470	---	244.1	19675	---	4839.4	8958	---	832.1
		JULY			AUGUST			SEPTEMBER	
1	147	10	3.8	100	5	1.3	1830	952	8250
2	127	9	3.1	100	5	1.2	3180	664	6760
3	132	10	3.6	98	6	1.6	2880	438	3600
4	150	10	4.0	95	11	2.7	1570	135	574
5	145	6	2.5	89	15	3.6	1070	101	292
6	132	5	1.6	89	16	3.9	811	58	128
7	116	3	1.0	89	16	3.8	596	49	78
8	106	3	.83	88	15	3.7	459	48	59
9	110	7	3.6	110	21	6.4	396	44	47
10	281	162	127	126	22	7.6	320	38	33
11	579	216	349	258	57	94	248	33	22
12	657	129	236	793	199	442	305	46	39
13	392	45	48	474	76	102	359	37	35
14	639	114	216	265	42	30	348	37	35
15	854	197	457	184	35	17	262	29	20
16	557	107	161	152	26	10	218	25	15
17	353	79	75	180	27	14	204	23	13
18	268	63	45	300	55	45	[illegible]	21	11
19	211	48	28	198	40	21	182	20	9.6
20	182	39	19	716	310	1020	231	26	17
21	164	34	15	1780	813	4340	264	17	12
22	149	28	11	724	223	466	374	24	25
23	152	25	10	374	72	75	322	35	30
24	155	24	9.9	257	39	27	381	30	33
25	133	16	5.7	205	55	30	790	82	180
26	127	10	3.3	170	61	28	566	48	74
27	118	7	2.2	156	54	23	407	42	46
28	113	5	1.5	280	66	55	319	40	34
29	111	5	1.4	379	61	63	272	45	33
30	108	5	1.4	283	50	38	243	60	39
31	105	5	1.4	220	49	29	---	---	---
TOTAL	7573	---	1847.83	9332	---	7004.8	19595	---	20543.6

03403910 CLEAR FORK AT SAXTON, KY

LOCATION.--Lat 36°38'02", long 84°06'42", Whitley County, Hydrologic Unit 05130101, on right bank at upstream side of bridge on State Highway 471, at Saxton, 100 ft upstream from Louisville and Nashville Railroad bride, 150 ft downstream from unnamed stream, 7.2 mi southeast of Williamsburg, and at mile 17.2.

DRAINAGE AREA.--331 mi².

PERIOD OF RECORD.--July 1968 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 921.83 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 20-26, 29, 30, Jan. 6-16, 28-30, and July 18 to Aug. 13. Records good except for estimated daily discharges, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--18 years, 562 ft³/s, 23.06 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,800 ft³/s, Apr. 5, 1977, gage height, 41.51 ft, from floodmarks; minimum, 4.8 ft³/s, Sept. 6, 1975; minimum gage height, 5.13 ft, Sept. 16, 17, 1969.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of 1929 reached a stage of 41.7 ft and 38.4 ft, respectively, from floodmarks; flood of 1957 reached a stage of 39.6 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 29	0600	5,920	20.30	Sept. 2	2400	4,860	18.18
Feb. 18	1500	*9,780	*26.56				

Minimum daily discharge, 14 ft³/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	46	826	233	193	546	222	108	247	50	18	968
2	394	46	725	217	208	513	212	98	840	81	18	1890
3	248	58	539	234	318	495	205	92	530	73	17	3010
4	307	182	447	225	520	447	190	85	341	47	16	733
5	180	753	391	212	1000	409	179	79	262	39	16	480
6	124	437	387	190	1450	388	169	79	329	34	15	341
7	92	309	318	180	1630	359	187	82	237	30	14	241
8	81	220	282	170	1120	316	189	82	202	27	15	181
9	72	165	260	160	805	290	168	83	214	34	16	148
10	68	138	233	160	632	276	156	77	359	112	25	119
11	65	114	215	150	565	283	143	72	225	73	60	94
12	62	101	229	140	440	279	137	70	171	66	150	90
13	61	94	476	140	373	299	131	77	130	124	130	99
14	60	87	619	130	403	357	127	95	100	97	72	84
15	60	82	515	120	455	801	123	88	85	81	50	70
16	63	79	453	115	420	929	118	161	72	60	45	65
17	64	99	392	109	2920	735	124	1040	63	54	50	66
18	57	110	335	106	8910	596	125	264	55	49	68	61
19	54	98	249	237	4630	883	112	186	49	46	67	59
20	56	91	240	319	1570	910	102	178	44	44	781	66
21	58	86	230	257	1050	702	144	135	41	40	228	159
22	61	158	220	240	799	571	181	103	36	37	128	117
23	67	322	210	230	661	496	142	147	35	33	81	86
24	58	284	200	212	576	437	121	1500	34	30	63	117
25	60	237	190	207	554	389	117	795	30	27	45	104
26	58	202	170	238	484	351	117	573	28	25	36	77
27	54	228	157	223	555	339	112	572	52	23	54	65
28	51	1700	147	210	616	308	105	719	90	22	272	56
29	47	4870	140	205	---	279	136	521	57	21	179	53
30	49	1460	130	200	---	258	123	387	74	20	89	58
31	48	---	146	190	---	242	---	315	---	19	63	---
TOTAL	2918	12862	10071	5959	33857	14483	4417	8863	5032	1518	2881	9757
MEAN	94.1	429	325	192	1209	467	147	286	168	49.0	92.9	325
MAX	394	4870	826	319	8910	929	222	1500	840	124	781	3010
MIN	47	46	130	106	193	242	102	70	28	19	14	53
CFSM	.28	1.30	.98	.58	3.65	1.41	.44	.86	.51	.15	.28	.98
IN	.33	1.45	1.13	.67	3.81	1.63	.50	.00	.57	.17	.32	1.10

CAL YR 1985 TOTAL 134585 MEAN 369 MAX 4870 MIN 32 CFSM 1.11 IN 15.13
WTR YR 1986 TOTAL 112618 MEAN 309 MAX 8910 MIN 14 CFSM .93 IN 12.66

BEST COPY AVAILABLE

03404000 CUMBERLAND RIVER AT WILLIAMSBURG, KY

LOCATION.--Lat 36°44'38", long 84°09'30", Whitley County, Hydrologic Unit 05130101, on left bank 10 ft downstream from bridge on State Highway 296 at Williamsburg, 2.1 mi downstream from Clear Fork, and at mile 590.3.

DRAINAGE AREA.--1,607 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to current year. Gage-height records collected in this vicinity since 1908 are published in reports of National Weather Service.

REVISED RECORDS.--WSP 1436: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 891.57 ft above National Geodetic Vertical Datum of 1929. Prior to July 2, 1951, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 24 to Jan. 1, 9-15, 18-20, and Jan. 28 to Feb. 1. Records good except for estimated daily discharges, which are poor. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979. Specific conductance temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--36 years, 2,687 ft^3/s, 22.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,700 ft^3/s, Jan. 31, 1957, gage height, 33.78 ft; maximum gage height, 35.03 ft, Apr. 7, 1977; minimum discharge, 6.1 ft^3/s, Oct. 23, 25, 26, 27, 1953, gage height, 1.64 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1918, 34.2 ft, Jan. 10, 1946.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 20,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 19	0600	*24,600	*23.16	No other peak greater than base discharge.			

Minimum discharge, 91 ft^3/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	595	226	9890	900	1270	4230	1150	728	1230	318	114	2010
2	1410	220	4760	940	1220	3860	1070	652	1480	263	111	5400
3	1040	227	3350	961	1780	3460	1000	607	1580	211	108	7600
4	864	379	2540	961	5020	3100	957	567	1060	236	106	4110
5	732	2720	2070	980	7790	2720	901	527	744	230	102	2270
6	566	3820	1950	943	8830	2450	843	499	697	207	99	1700
7	427	3000	1790	862	9260	2290	825	482	679	183	94	1300
8	350	2230	1530	795	9620	2110	880	469	557	163	100	920
9	300	1650	1340	780	7420	1900	816	460	638	153	104	706
10	266	1250	1220	760	4850	1740	743	443	764	326	125	599
11	241	1010	1110	740	3740	1740	707	411	642	1030	402	498
12	234	862	1080	720	3100	1940	670	388	636	1010	956	493
13	225	720	1560	700	2530	2080	639	391	609	850	885	533
14	225	587	2450	690	2220	2410	617	453	523	610	555	566
15	226	534	2690	650	2140	4240	599	581	444	851	345	506
16	266	507	2490	611	2200	7860	583	776	384	1060	272	411
17	280	542	2160	597	5710	7290	571	1870	330	658	246	351
18	281	670	1850	570	19700	5030	576	1390	296	436	247	332
19	260	685	1550	900	23800	4060	570	1180	271	326	375	313
20	240	639	1330	1500	20600	4270	542	938	253	270	1210	297
21	236	578	1210	1760	17800	3630	560	776	232	235	1140	441
22	255	572	1030	1640	11600	3020	720	687	215	225	1920	485
23	328	881	990	1520	5840	2630	801	712	199	194	820	521
24	438	1140	1000	1550	4520	2370	715	1900	187	178	472	518
25	353	1200	950	1560	4110	2160	664	1680	174	174	336	589
26	320	1060	900	1580	3590	1900	636	1450	166	162	271	911
27	297	1010	850	1620	3410	1690	617	1400	159	147	235	700
28	274	3520	770	1540	4080	1590	598	1610	254	135	380	534
29	255	13900	700	1450	---	1460	624	1870	332	126	496	437
30	241	14300	650	1360	---	1330	715	1800	387	120	498	376
31	233	---	680	1310	---	1240	---	1530	---	114	399	---
TOTAL	12262	60639	58440	33450	197750	91800	21909	29227	16122	11201	13523	36427
MEAN	396	2021	1885	1079	7063	2961	730	943	537	361	436	1214
MAX	1410	14300	9890	1760	23800	7860	1150	1900	1580	1060	1920	7600
MIN	225	220	650	570	1220	1240	542	388	159	114	94	297
CFSM	.25	1.26	1.17	.67	4.40	1.84	.45	.59	.33	.22	.27	.76
IN	.28	1.40	1.35	.77	4.58	2.13	.51	.68	.37	.26	.31	.84

CAL YR 1985 TOTAL 696425 MEAN 1908 MAX 15800 MIN 161 CFSM 1.19 IN 16.12
WTR YR 1986 TOTAL 582750 MEAN 1597 MAX 23800 MIN 94 CFSM .99 IN 13.49

03404000 CUMBERLAND RIVER AT WILLIAMSBURG, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-72, 1978 to August 1981, October 1983 to September 1985.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1951 to September 1962.

WATER TEMPERATURES: October 1951 to September 1962, May to September 1980.

SUSPENDED-SEDIMENT DISCHARGE: October 1953 to September 1962, November 1979 to August 1981, October 1983 to September 1985.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 754 microsiemens, Dec. 11, 1953; minimum daily, 60 microsiemens, Mar. 24, 25, 1952.

WATER TEMPERATURES: Maximum daily, 33.0°C, on several days during June and July 1952; minimum daily, 0.0°C, Jan. 9, 1958, Mar. 13, 1960.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,170 mg/L, July 5, 1980; minimum daily mean, 1 mg/L, on many days during winter periods.

SEDIMENT LOADS: Maximum daily, 131,000 tons, May 7, 1984; minimum daily, 0.27 ton, Nov. 10, 1980.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1060 mg/L, Sept. 2; minimum daily mean, 4 mg/L, Apr. 17-20, Dec. 22.

SEDIMENT LOADS: Maximum daily, 50,500 tons, Feb. 18; minimum daily, 2.1 tons, Aug. 7.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1985						
09...	1425	283	16.0	480	10	7.6
NOV						
18...	1530	730	12.0	320	20	39
JAN 1986						
02...	1505	961	7.0	--	3	7.8
FEB						
25...	1700	4130	7.0	280	73	814
APR						
07...	1505	773	20.0	400	9	18
MAY						
14...	1500	467	23.5	440	19	24
JUN						
27...	1000	155	25.0	440	15	6.3
AUG						
13...	1540	783	25.0	500	72	152

03404000 CUMBERLAND RIVER AT WILLIAMSBURG, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	595	143	265	226	11	6.4	9890	182	4860
2	1410	215	826	220	10	6.2	4760	135	1740
3	1040	62	181	227	11	6.6	3350	90	814
4	864	33	78	379	43	58	2540	59	410
5	732	25	48	2720	357	2620	2070	37	208
6	566	19	29	3820	310	3230	1950	25	129
7	427	15	17	3000	167	1360	1790	21	103
8	350	12	11	2230	124	748	1530	18	74
9	300	10	8.2	1650	101	451	1340	14	50
10	266	10	7.0	1250	80	269	1220	10	34
11	241	10	6.3	1010	58	159	1110	9	27
12	234	10	6.0	862	42	97	1080	9	27
13	229	9	5.7	720	26	51	1560	29	134
14	225	9	5.3	587	17	26	2450	60	403
15	226	9	5.3	534	13	19	2690	59	427
16	266	13	9.6	507	9	13	2490	48	322
17	280	12	8.9	542	9	13	2160	38	223
18	281	12	8.7	670	17	32	1850	28	139
19	260	11	8.0	685	16	30	1550	17	70
20	240	11	7.1	639	15	26	1330	9	31
21	236	11	6.8	578	13	20	1210	5	17
22	255	11	7.8	572	13	20	1030	4	12
23	328	18	17	881	28	67	990	5	13
24	438	20	23	1140	56	176	1000	5	14
25	353	16	15	1200	51	166	950	8	20
26	320	14	12	1060	38	109	900	11	28
27	297	15	12	1010	34	92	850	10	24
28	274	14	10	3520	131	1950	770	9	19
29	255	14	9.5	13900	568	21600	700	8	15
30	241	13	8.5	14300	252	9760	650	6	11
31	233	12	7.3	---	---	---	680	5	9.4
TOTAL	12262	---	1670.0	60639	---	43181.2	58440	---	10407.4
		JANUARY			FEBRUARY			MARCH	
1	900	5	11	1270	14	47	4230	75	856
2	940	5	12	1220	14	47	3860	47	493
3	961	5	12	1780	91	499	3460	32	299
4	961	5	12	5020	367	5480	3100	25	206
5	980	5	12	7790	403	8440	2720	19	137
6	943	5	12	8830	258	6160	2450	19	125
7	862	5	12	9260	255	6400	2290	21	130
8	795	5	11	9620	313	8120	2110	22	124
9	780	5	11	7420	195	3960	1900	23	116
10	760	6	11	4850	101	1340	1740	24	111
11	740	5	10	3740	66	667	1740	25	115
12	720	5	10	3100	45	377	1940	29	154
13	700	6	10	2530	35	242	2080	41	230
14	690	5	10	2220	32	190	2410	50	328
15	650	5	9.5	2140	29	166	4240	80	1010
16	611	5	8.9	2200	27	161	7860	276	5960
17	597	5	8.5	5710	138	2830	7290	170	3440
18	570	6	8.7	19700	888	50500	5030	67	920
19	900	27	65	23800	733	47400	4060	116	1300
20	1500	145	589	20600	302	16900	4270	97	1120
21	1760	50	237	17800	169	8110	3630	35	349
22	1640	23	103	11600	130	4050	3020	21	171
23	1520	16	66	5840	106	1660	2630	15	105
24	1550	14	58	4520	93	1140	2370	13	81
25	1560	13	56	4110	90	994	2160	14	80
26	1580	13	54	3590	76	735	1900	15	77
27	1620	12	53	3410	70	648	1690	16	74
28	1540	11	47	4080	93	1030	1590	15	65
29	1450	11	42	---	---	---	1460	13	53
30	1360	16	57	---	---	---	1330	12	44
31	1310	17	60	---	---	---	1240	12	38
TOTAL	33450	---	1678.6	197750	---	178293	91800	---	18311

03404000 CUMBERLAND RIVER AT WILLIAMSBURG, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			MAY			JUNE	
1	1150	11	34	728	10	20	1230	70	233
2	1070	10	30	653	10	17	1480	186	910
3	1000	10	28	607	9	14	1580	170	746
4	957	10	26	569	8	13	1060	72	209
5	901	9	22	527	8	12	744	45	90
6	843	9	20	499	9	12	697	48	91
7	825	9	20	485	9	12	679	43	80
8	880	14	33	471	11	13	558	25	38
9	816	9	20	460	11	14	638	33	57
10	743	7	15	443	11	13	764	52	114
11	707	7	13	411	11	12	642	32	56
12	670	6	11	390	11	12	637	56	98
13	639	5	9.2	393	12	13	609	38	63
14	617	5	8.7	453	18	22	523	32	45
15	599	5	8.1	582	23	37	445	29	35
16	583	5	7.6	776	68	179	385	26	27
17	571	4	6.8	1870	613	3410	331	23	20
18	576	4	6.6	1390	570	2130	296	20	16
19	571	4	6.3	1180	172	577	272	18	13
20	543	4	5.9	938	69	175	254	17	12
21	560	6	9.8	776	98	203	232	19	12
22	720	16	31	687	88	164	215	20	12
23	801	22	47	712	60	115	201	19	10
24	715	10	20	1900	357	2170	191	18	9.2
25	665	7	12	1680	158	723	175	18	8.4
26	637	5	9.4	1450	89	351	166	16	7.2
27	617	5	9.0	1400	82	309	159	14	6.1
28	598	6	9.4	1610	104	452	254	30	22
29	624	9	15	1870	131	662	332	33	31
30	715	9	18	1800	111	542	389	38	40
31	---	---	---	1530	91	375	---	---	---
TOTAL	21913	---	511.8	29240	---	12773	16138	---	3110.9
		JULY			AUGUST			SEPTEMBER	
1	319	20	17	114	15	4.6	2010	411	3340
2	263	14	10	111	14	4.1	5400	1060	15700
3	211	12	6.8	108	13	3.8	7600	1040	21700
4	236	17	11	106	12	3.5	4110	304	3560
5	230	14	8.5	102	11	3.0	2270	149	926
6	207	10	5.8	99	9	2.5	1700	85	391
7	185	8	4.0	94	8	2.1	1300	52	181
8	163	7	3.2	100	14	3.8	920	43	106
9	154	12	5.2	104	15	4.2	706	38	73
10	327	86	165	125	18	7.0	599	34	55
11	1030	190	550	402	103	202	498	31	41
12	1010	155	424	956	196	548	493	46	61
13	850	97	224	885	92	229	533	49	71
14	610	61	101	555	51	77	566	44	67
15	851	69	161	345	40	37	506	35	48
16	1060	76	223	272	38	28	411	31	34
17	658	55	98	247	46	31	351	28	27
18	437	47	55	248	42	29	332	27	24
19	326	42	37	377	48	49	313	26	22
20	270	34	25	1210	108	432	297	25	20
21	235	28	18	1140	149	571	441	34	42
22	225	26	16	1920	479	2560	485	24	31
23	194	24	13	820	264	588	521	25	35
24	178	23	11	474	187	240	518	22	31
25	174	21	9.9	337	129	118	589	22	37
26	162	20	8.7	273	97	71	911	49	123
27	147	19	7.6	235	79	50	700	27	51
28	135	19	6.8	381	111	118	534	20	29
29	126	18	6.1	497	98	133	437	17	20
30	120	17	5.5	499	93	126	376	15	16
31	114	16	5.0	401	57	61	---	---	---
TOTAL	11207	---	2242.1	13537	---	6336.6	36427	---	46862
YEAR	582803		325377.6						

CUMBERLAND RIVER BASIN

03404500 CUMBERLAND RIVER AT CUMBERLAND FALLS, KY

LOCATION.--Lat 36°50'14", long 84°20'36", McCreary County, Hydrologic Unit 05130101, on left bank 0.1 mi downstream from bridge on State Highway 90, 0.2 mi upstream from Cumberland Falls, and at mile 562.4.

DRAINAGE AREA.--1,977 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1907 to December 1911, October 1914 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 1386: 1919. WSP 1436: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 825.49 ft above Sandy Hook datum; 825.28 ft above National Geodetic Vertical Datum of 1929. Aug. 15, 1907 to Dec. 10, 1911, nonrecording gage at site 300 ft downstream at different datum. Apr. 3, 1915 to Sept. 1, 1933, nonrecording gage at site 500 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 29, Jan. 9-13, 16-18, Jan. 29 to Feb. 1. Records good except for estimated discharges, which are fair. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979.

AVERAGE DISCHARGE.--76 years, 3,163 ft³/s, 21.73 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,600 ft³/s, Jan. 28, 1918, gage height, 15.5 ft, present site and datum; minimum, 4.0 ft³/s, Sept. 19, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 20,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 18	1700	*25,700	*9.41	No other peak greater than base discharge.			

Minimum discharge, 110 ft³/s, Aug. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1920	302	11700	832	1350	4580	1330	912	1430	408	137	1010
2	3450	298	6120	941	1450	4250	1270	867	1180	338	137	4720
3	1940	297	3960	1090	1990	3810	1220	780	1770	270	132	7750
4	1280	362	3060	1110	4860	3350	1180	729	1310	229	126	5250
5	1020	1870	2420	1110	8550	2950	1140	678	978	239	123	3850
6	832	4060	2160	1110	10300	2630	1110	634	775	241	121	3890
7	638	3360	2020	1040	11000	2430	1120	605	835	225	118	3910
8	514	2540	1790	985	10700	2240	1110	586	1060	204	114	2410
9	437	1930	1560	940	8910	2030	1120	563	786	201	110	806
10	380	1480	1430	900	5960	1850	1040	549	1020	239	112	664
11	345	1200	1330	860	4520	1860	996	520	1020	910	129	571
12	319	1020	1270	840	3680	1980	970	484	826	995	819	528
13	309	904	1470	810	3010	2280	942	465	803	1010	938	546
14	310	757	2490	778	2640	2560	927	486	702	778	776	576
15	330	667	2920	748	2490	4720	912	576	587	701	518	577
16	336	634	2860	720	2500	8320	893	698	497	943	354	508
17	351	673	2520	700	8640	8390	887	1510	424	967	303	418
18	352	745	2160	680	24000	6040	887	1510	359	612	274	371
19	345	837	1840	790	24800	4580	879	1370	317	436	283	352
20	317	815	1590	1320	21200	4590	844	1130	290	342	625	333
21	320	747	1440	1840	18500	4030	874	965	265	288	1140	387
22	331	726	1340	1880	13400	3320	962	832	245	256	1650	590
23	343	888	1230	1690	6950	2810	1100	800	232	252	1310	510
24	463	1200	1250	1650	5000	2590	1060	1560	217	223	677	587
25	493	1370	1230	1680	4420	2350	944	2150	207	208	451	545
26	417	1300	1100	1710	3960	2120	881	1760	193	206	343	731
27	388	1310	970	1740	3660	1880	838	1640	187	195	293	842
28	355	3000	943	1650	4260	1760	803	1770	196	174	258	650
29	329	15100	900	1600	---	1630	813	1880	297	156	446	525
30	314	15100	867	1500	---	1510	858	1970	379	144	540	440
31	310	---	840	1400	---	1410	---	1700	---	138	520	---
TOTAL	19788	65492	68780	36644	222700	100850	29910	32679	19387	12528	13877	44847
MEAN	638	2183	2219	1182	7954	3253	997	1054	646	404	448	1495
MAX	3450	15100	11700	1880	24800	8390	1330	2150	1770	1010	1650	7750
MIN	309	297	840	680	1350	1410	803	465	187	138	110	333
CFSM	.32	1.10	1.12	.60	4.02	1.65	.50	.53	.33	.20	.23	.76
IN	.37	1.23	1.29	.69	4.19	1.90	.56	.61	.36	.24	.26	.84

CAL YR 1985 TOTAL 802544 MEAN 2199 MAX 17000 MIN 195 CFSM 1.11 IN 15.10
WTR YR 1986 TOTAL 667482 MEAN 1829 MAX 24800 MIN 110 CFSM .93 IN 12.56

03404500 CUMBERLAND RIVER AT CUMBERLAND FALLS, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-77, April 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1981 to current year.
pH: November 1981 to current year.
WATER TEMPERATURE: November 1981 to current year.
DISSOLVED OXYGEN: November 1981 to current year.
TURBIDITY: November 1981 to current year.
SUSPENDED-SEDIMENT DISCHARGE: April 1981 to current year.

INSTRUMENTATION.--ISCO automatic sediment pumping sampler since April 1981, and flow-through 5-parameter water-quality monitor since November 1981.

REMARKS.--Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section. Water-quality monitor operated for only about six months during the year because of water pump control box failure.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 702 microsiemens, Sept. 15, 1985; minimum recorded, 67 microsiemens, May 7, 1984.
PH: Maximum recorded, 9.3 units, Nov. 13, 1983; minimum recorded, 6.5 units, Sept. 3, 1982, and Feb. 11, 1984.
WATER TEMPERATURE: Maximum, 34.5°C, July 20, 27, 1986; minimum recorded, 0.0°C, several days during winter periods.
DISSOLVED OXYGEN: Maximum recorded, 18.2 mg/L, Jan. 21, 22, 1984; minimum recorded, 5.0 mg/L, Sept. 4, 1986.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,140 mg/L, Feb. 19, 1982; minimum daily mean, 0 mg/L, on several Apr. 17-19, 1986.
SEDIMENT LOADS: Maximum daily, 174,000 tons, May 7, 1984; minimum daily, 0.40 ton, Apr. 19, 1986.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 555 microsiemens, Aug. 18; minimum, 129 microsiemens, Feb. 20.
pH: Maximum, 9.2 units, Apr. 10, June 15, 16; minimum, 6.8 units, Feb. 20.
WATER TEMPERATURE: Maximum, 34.5°C, July 20, 27; minimum, 0.0°C, Jan. 11, 12, 14-16, 27-30.
DISSOLVED OXYGEN: Maximum, 15.1 mg/L, Feb. 1; minimum, 5.0 mg/L, Sept. 4.
TURBIDITY: Maximum, 650 JTU, Feb. 19, Aug. 18, minimum, 1.0 Oct. 1 & Dec. 25, 26.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,430 mg/L, Feb. 6; minimum daily mean, 0 mg/L, on Apr. 17-19.
SEDIMENT LOADS: Maximum daily, 80,900 tons, Feb. 19; minimum daily, 0.40 ton, Apr. 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1985						
04...	1500	1270	18.0	319	28	96
NOV						
12...	1530	1020	12.5	248	13	36
JAN 1986						
03...	1030	1070	2.0	310	3	8.7
MAR						
10...	1530	1920	8.0	300	13	67
APR						
02...	1315	1200	18.0	320	3	9.7
MAY						
27...	1200	1650	22.0	275	223	993
JUN						
30...	1150	373	27.0	420	3	3.0
AUG						
15...	1320	491	25.5	505	6	8.0

03404500 CUMBERLAND RIVER AT CUMBERLAND FALLS, KY--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	443	431	438	386	374	379	153	139	144	---	---	---
2	432	208	349	390	376	384	171	154	162	---	---	---
3	212	166	180	393	389	390	184	172	179	---	---	---
4	305	220	285	395	379	388	195	185	190	---	---	---
5	319	307	316	415	366	382	202	195	199	---	---	---
6	340	328	336	420	339	374	207	202	204	---	---	---
7	341	333	336	336	254	292	220	207	213	---	---	---
8	354	342	347	255	246	250	228	220	224	---	---	---
9	366	355	362	265	256	260	---	---	---	---	---	---
10	369	367	368	265	256	263	---	---	---	---	---	---
11	376	370	375	256	252	254	249	246	248	994	551	772
12	384	376	379	252	248	250	251	247	249	911	315	627
13	394	384	387	251	245	247	250	247	249	376	285	341
14	406	388	400	251	248	250	317	247	280	279	269	274
15	407	398	404	255	248	251	335	250	286	274	269	272
16	396	386	389	256	249	254	249	225	234	275	272	273
17	402	391	397	255	251	253	227	224	226	277	274	276
18	413	403	408	265	254	259	225	213	219	277	275	276
19	424	413	417	282	266	274	212	209	211	275	263	269
20	428	422	426	295	283	289	210	209	209	281	257	265
21	429	425	428	303	295	299	213	209	211	287	282	286
22	429	424	428	301	292	295	223	214	219	286	262	272
23	429	424	426	306	290	295	295	220	260	261	248	252
24	441	430	436	327	308	319	261	256	258	255	241	250
25	451	438	448	335	328	332	276	259	266	241	236	239
26	452	448	450	335	332	333	284	277	282	236	231	233
27	451	435	444	331	298	316	---	---	---	231	223	226
28	447	439	444	294	191	250	---	---	---	227	214	222
29	455	449	453	189	159	169	---	---	---	214	205	209
30	453	424	442	171	153	161	---	---	---	208	204	206
31	423	386	405	---	---	---	---	---	---	325	208	247

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	251	242	247				---	---	---	399	393	396
2	254	247	250				327	319	323	398	394	395
3	254	201	234				330	324	327	397	389	395
4	243	210	230				335	329	332	392	386	389
5	239	172	202				340	335	338	390	384	387
6	171	152	164				343	340	341	388	383	386
7	162	151	158				344	341	343	389	382	386
8	172	160	166				353	344	348	384	380	382
9	168	159	164				362	353	357	391	382	386
10	168	159	163				366	363	364	395	390	392
11	185	168	176				368	365	366	393	389	392
12	201	185	194				369	366	368	395	389	392
13	213	201	209				374	366	371	391	384	388
14	224	213	219				377	374	375	385	381	384
15	231	222	225				374	371	373	394	384	389
16	243	232	239				378	373	376	406	390	398
17	242	137	191				383	378	381	446	407	428
18	166	135	149				388	383	385	450	287	381
19	165	132	142				394	388	391	388	289	348
20	135	129	131				395	386	393	388	337	365
21	168	136	153				388	358	377	358	342	352
22	202	169	185				372	359	366	343	331	335
23	211	203	208				391	373	384	337	292	316
24	225	211	219				401	391	397	304	285	292
25	---	---	---				405	398	402	318	249	290
26	---	---	---				400	395	398	247	230	239
27	---	---	---				399	391	395	251	244	248
28	---	---	---				403	394	398	273	249	264
29	---	---	---				397	376	387	291	272	284
30	---	---	---				395	377	385	320	292	311
31	---	---	---				---	---	---	316	308	312

CUMBERLAND RIVER BASIN

03404500 CUMBERLAND RIVER AT CUMBERLAND FALLS, KY--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C.) WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	307	292	298	415	408	411	421	417	420	385	293	349
2	298	291	295	415	412	414	423	416	420	346	252	307
3	293	284	288	416	408	414	424	421	422	311	240	264
4	293	246	265	417	399	406	423	421	422	267	216	242
5	255	247	252	449	419	435	424	421	422	267	254	261
6	262	251	258	471	450	460	426	423	424	272	254	264
7	274	257	267	480	471	477	430	426	429	292	273	283
8	255	196	225	492	480	484	439	428	433	300	293	295
9	263	199	242	504	464	489	446	439	443	---	---	---
10	270	225	247	458	410	442	453	446	449	---	---	---
11	292	250	276	448	398	424	450	447	449	---	---	---
12	307	285	292	459	421	442	472	429	457	---	---	---
13	323	307	314	443	411	427	489	440	465	---	---	---
14	327	316	320	427	400	408	486	442	463	---	---	---
15	347	329	339	414	400	404	511	489	503	---	---	---
16	379	349	363	507	417	456	528	512	522	---	---	---
17	386	380	384	513	442	469	539	528	532	---	---	---
18	386	382	385	455	412	436	555	540	550	---	---	---
19	392	386	389	424	410	417	553	516	543	---	---	---
20	392	385	389	424	412	418	510	417	456	---	---	---
21	393	387	389	438	415	426	472	384	445	---	---	---
22	395	391	393	449	439	446	477	334	388	---	---	---
23	399	396	398	444	426	437	489	385	443	---	---	---
24	---	---	---	425	413	418	400	382	393	---	---	---
25	---	---	---	417	412	415	405	400	402	---	---	---
26	---	---	---	420	411	415	403	356	387	---	---	---
27	---	---	---	415	408	411	370	345	360	---	---	---
28	---	---	---	413	410	411	350	343	345	---	---	---
29	---	---	---	413	409	411	350	341	346	---	---	---
30	414	410	412	418	413	414	392	351	367	---	---	---
31	---	---	---	420	412	417	403	388	395	---	---	---

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.2	8.0	8.5	7.9	7.4	7.2	---	---	8.5	7.6		
2	8.1	7.0	8.4	7.9	7.6	7.3	---	---	8.2	7.5		
3	7.3	7.1	8.3	7.9	7.7	7.6	---	---	8.2	7.2		
4	7.6	7.3	8.2	8.0	7.7	7.7	---	---	7.3	7.2		
5	7.7	7.6	8.1	7.8	7.8	7.7	---	---	7.2	7.1		
6	8.2	7.9	7.9	7.8	7.8	7.8	---	---	7.1	7.0		
7	8.3	7.9	7.9	7.8	7.9	7.8	---	---	7.2	7.0		
8	8.5	7.9	7.9	7.8	7.9	7.8	---	---	7.4	7.2		
9	8.7	7.9	7.9	7.9	---	---	---	---	7.3	7.2		
10	8.7	7.9	7.9	7.8	---	---	---	---	7.3	7.2		
11	8.8	7.9	7.9	7.8	7.9	7.6	7.8	7.7	7.5	7.3		
12	8.8	7.9	7.8	7.7	7.7	7.6	7.8	7.6	7.6	7.5		
13	8.7	7.9	8.1	7.8	7.7	7.6	7.9	7.5	7.6	7.5		
14	8.7	7.9	8.2	7.7	7.7	7.6	7.9	7.6	7.6	7.5		
15	8.4	7.7	8.3	7.7	7.7	7.7	7.9	7.6	7.6	7.5		
16	8.4	7.7	8.0	7.7	7.7	7.6	8.0	7.6	7.6	7.4		
17	8.5	7.9	8.3	7.8	7.7	7.6	8.0	7.5	7.4	6.9		
18	8.4	7.8	8.5	7.7	7.8	7.7	8.1	7.5	7.2	6.8		
19	8.4	7.8	8.5	7.7	7.8	7.7	8.0	7.5	7.2	6.9		
20	8.5	7.8	8.2	7.7	7.7	7.7	8.1	7.5	7.0	6.8		
21	8.3	7.9	8.7	7.9	7.7	7.7	7.9	7.5	7.1	6.9		
22	8.5	7.9	8.3	7.9	7.7	7.7	8.1	7.4	7.1	7.0		
23	8.3	7.9	8.8	8.0	7.8	7.6	8.6	8.1	7.1	7.1		
24	8.3	7.8	8.2	7.9	7.8	7.7	8.8	8.2	7.3	7.1		
25	8.5	7.8	8.3	7.9	7.9	7.7	8.3	8.1	---	---		
26	8.6	8.0	8.3	7.9	7.9	7.8	8.6	8.1	---	---		
27	8.7	8.0	8.2	7.8	---	---	9.0	8.2	---	---		
28	8.7	8.0	7.8	7.3	---	---	8.8	8.3	---	---		
29	8.6	8.1	7.4	7.2	---	---	8.6	8.2	---	---		
30	8.7	8.1	7.5	7.2	---	---	8.9	8.1	---	---		
31	8.7	8.0	---	---	---	---	8.6	7.9	---	---		

03404500 CUMBERLAND RIVER AT CUMBERLAND FALL, KY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	8.1	7.7	7.9	7.9	8.3	8.0	8.8	8.2	7.9	7.5
2	8.6	8.1	8.2	7.8	8.0	7.9	8.5	8.0	8.7	8.2	7.4	7.3
3	8.7	7.9	8.2	7.9	7.9	7.8	8.5	8.1	8.8	8.2	7.3	7.0
4	8.7	7.9	8.2	8.0	7.9	7.8	8.5	8.1	8.6	8.1	7.4	7.0
5	8.7	7.9	8.1	7.8	8.0	7.8	8.5	8.1	8.5	8.1	7.5	7.4
6	8.7	7.8	8.1	7.7	8.1	7.8	8.5	8.1	8.4	8.0	7.6	7.5
7	8.9	7.9	8.0	7.6	8.2	7.8	8.5	8.1	8.4	7.9	7.7	7.6
8	8.8	7.9	8.4	7.6	7.8	7.5	8.5	8.1	8.3	7.9	7.8	7.5
9	8.9	8.0	8.4	8.0	8.2	7.5	8.4	8.1	8.4	7.9	---	---
10	9.2	8.2	8.4	8.0	8.1	7.7	8.2	7.9	8.3	7.9	---	---
11	9.1	8.3	8.4	8.0	8.4	7.7	8.0	7.8	8.3	7.8	---	---
12	9.1	8.3	8.4	8.0	8.7	7.7	7.9	7.8	8.0	7.7	---	---
13	9.0	8.3	8.4	7.9	8.9	7.8	8.0	7.9	7.8	7.7	---	---
14	8.9	8.3	8.3	8.0	9.1	7.8	8.1	7.9	8.0	7.6	---	---
15	9.1	8.2	8.4	7.9	9.2	7.8	8.2	7.9	8.3	7.7	---	---
16	9.0	8.8	8.4	7.9	9.2	7.9	8.2	7.9	8.3	7.8	---	---
17	8.9	8.7	8.2	7.8	9.1	8.1	8.3	8.0	8.4	7.8	---	---
18	9.0	8.7	7.9	7.8	9.0	8.4	8.4	8.0	8.6	7.8	---	---
19	9.0	8.7	8.0	7.8	8.9	8.5	8.7	7.9	8.5	8.0	---	---
20	8.9	8.7	8.1	8.0	8.8	8.2	8.8	8.0	8.5	7.5	---	---
21	8.9	8.6	8.2	8.1	8.7	8.1	8.9	8.0	7.7	7.5	---	---
22	9.0	8.7	8.3	8.1	8.6	8.1	9.0	8.2	7.6	7.4	---	---
23	8.9	8.8	8.1	8.0	8.5	8.1	9.0	8.2	7.7	7.6	---	---
24	8.9	8.7	8.0	7.7	---	---	9.1	8.4	8.1	7.7	---	---
25	8.8	8.7	7.9	7.7	---	---	9.0	8.5	8.4	7.8	---	---
26	8.9	8.7	7.8	7.7	---	---	8.9	8.5	8.5	7.7	---	---
27	8.8	8.7	7.8	7.8	---	---	8.9	8.4	8.6	7.7	---	---
28	8.8	8.6	7.8	7.8	---	---	8.9	8.4	8.8	7.8	---	---
29	8.8	8.6	7.8	7.7	---	---	8.9	8.4	8.7	7.9	---	---
30	8.7	7.8	7.9	7.8	8.2	8.2	8.9	8.4	8.7	7.8	---	---
31	---	---	7.9	7.9	---	---	8.7	8.4	8.2	7.8	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	22.0	17.5	20.0	18.0	17.0	17.5	14.5	14.0	14.0	---	---	---
2	21.5	15.5	18.5	18.0	17.0	17.5	13.5	11.0	12.0	---	---	---
3	15.5	15.0	15.0	17.0	15.5	16.0	10.5	9.0	10.0	---	---	---
4	15.5	15.0	15.5	15.5	12.5	14.0	9.0	8.0	8.5	---	---	---
5	15.5	15.5	15.5	12.5	11.5	12.0	8.0	7.0	7.5	---	---	---
6	17.0	14.0	15.0	12.5	12.0	12.5	7.0	6.0	6.5	---	---	---
7	17.0	13.0	15.0	12.0	10.5	11.5	6.5	5.0	6.0	---	---	---
8	17.5	13.5	15.5	11.5	10.0	10.5	7.5	5.0	5.5	---	---	---
9	18.5	14.5	16.5	11.5	9.5	10.5	7.5	7.0	7.0	---	---	---
10	19.0	16.0	17.5	12.5	10.0	11.0	9.0	8.5	9.0	---	---	---
11	21.0	17.0	19.0	13.0	11.5	12.0	8.0	7.5	7.5	2.0	.0	1.0
12	22.0	18.5	20.0	12.5	12.5	12.5	8.0	8.0	8.0	2.5	.0	1.0
13	22.0	19.5	20.5	15.0	12.5	13.5	8.0	7.0	7.5	1.5	.5	1.0
14	22.0	19.5	21.0	15.5	13.5	14.5	7.0	5.5	6.0	1.5	.0	.5
15	21.5	20.5	21.0	15.5	14.0	15.0	6.0	5.0	5.0	2.0	.0	1.0
16	21.5	19.0	20.0	16.0	15.0	15.5	5.5	4.5	5.0	2.5	.0	1.0
17	20.5	17.0	19.0	14.5	13.5	14.0	5.0	3.5	4.5	3.0	1.5	2.0
18	21.5	18.5	20.0	16.5	13.5	15.0	4.0	2.5	3.0	4.0	2.5	3.0
19	22.5	19.0	21.0	16.5	14.0	15.5	2.5	1.0	2.0	3.5	3.0	3.5
20	22.5	20.0	21.5	15.5	14.0	15.0	2.0	1.5	2.0	3.5	2.5	3.0
21	21.0	20.5	21.0	13.5	12.5	13.0	2.0	.5	1.0	4.5	2.0	3.0
22	20.5	19.5	20.0	13.0	12.0	12.5	2.0	.5	1.0	4.5	3.5	4.5
23	20.0	19.0	19.5	13.0	11.0	12.0	2.5	1.5	2.0	5.0	3.0	4.0
24	20.5	19.5	20.0	12.5	12.0	12.0	2.0	1.5	1.5	4.5	2.5	3.5
25	21.0	19.0	20.5	13.5	12.0	12.5	1.0	.5	.5	4.0	3.5	3.5
26	20.0	16.5	18.0	14.5	13.0	13.5	.5	.5	.5	4.0	2.5	3.5
27	19.5	17.5	19.0	15.0	14.5	14.5	---	---	---	2.5	.0	1.0
28	19.5	18.0	18.5	15.0	14.5	15.0	---	---	---	.0	.0	.0
29	18.0	16.5	17.0	15.0	15.0	15.0	---	---	---	1.0	.0	.5
30	17.5	16.0	16.5	15.0	14.5	15.0	---	---	---	2.0	.0	1.0
31	18.0	16.0	17.0	---	---	---	---	---	---	2.5	.5	1.5

BEST COPY AVAILABLE

03404500 CUMBERLAND RIVER AT CUMBERLAND FALLS, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	1.5	2.5				---	---	---	22.0	19.5	21.0
2	3.5	3.0	3.0				18.5	15.0	17.0	22.0	17.5	20.0
3	5.0	3.5	4.5				18.5	15.5	17.0	21.0	17.0	19.0
4	7.5	5.0	6.5				18.5	16.0	17.0	21.5	16.0	18.5
5	9.0	7.5	8.5				19.0	16.0	17.5	22.5	17.5	20.0
6	10.5	9.0	10.0				20.0	17.5	18.5	23.5	19.0	21.5
7	10.0	9.0	9.5				21.5	17.5	19.5	25.5	21.0	23.0
8	9.0	8.5	9.0				20.5	18.0	19.0	26.5	22.0	24.0
9	8.5	8.0	8.5				17.5	14.5	16.0	26.5	21.0	24.0
10	8.0	6.5	7.5				17.0	13.0	15.0	26.0	21.5	24.0
11	6.5	5.0	5.5				17.5	13.0	15.0	25.5	22.5	24.0
12	5.0	4.0	4.5				18.5	13.0	16.0	24.5	22.5	23.5
13	4.0	2.5	3.5				19.0	14.5	16.5	26.0	22.0	24.0
14	3.0	1.5	2.0				18.0	15.0	17.0	26.0	22.5	24.0
15	3.5	2.0	2.5				18.0	16.0	17.0	25.5	22.5	24.0
16	4.5	1.5	3.0				16.0	13.0	14.0	26.5	23.0	24.5
17	6.0	3.5	4.5				13.0	12.5	12.5	26.5	23.5	25.0
18	7.5	6.0	7.0				17.5	12.0	14.5	24.0	22.0	23.0
19	9.5	7.5	8.5				18.0	14.0	16.0	22.5	21.5	22.0
20	10.0	9.0	9.5				17.0	15.5	16.0	21.5	20.0	20.5
21	10.0	9.5	10.0				16.0	14.5	15.0	20.5	18.5	19.5
22	10.0	9.5	9.5				15.5	12.5	14.0	22.5	18.0	20.0
23	10.0	9.0	9.0				17.0	11.5	14.0	20.5	18.5	19.0
24	9.0	8.0	8.5				18.0	12.5	15.5	20.5	18.0	19.0
25	---	---	---				21.0	14.5	17.5	19.5	18.0	18.5
26	---	---	---				22.5	17.0	19.5	19.0	18.0	18.5
27	---	---	---				24.0	18.5	21.0	20.5	19.0	19.5
28	---	---	---				21.5	19.5	20.5	21.0	19.5	20.5
29	---	---	---				23.0	17.5	20.0	22.5	20.0	21.0
30	---	---	---				23.5	18.0	20.5	24.0	21.0	22.5
31	---	---	---				---	---	---	25.5	21.5	23.5

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.5	22.5	23.5	31.0	28.0	29.5	31.0	25.0	28.0	22.0	21.0	21.5
2	24.5	23.0	23.5	30.0	27.5	28.5	31.0	26.5	28.5	20.5	20.0	20.5
3	25.0	22.5	23.5	30.0	25.5	27.5	31.5	26.5	28.5	22.0	20.0	21.0
4	23.5	22.5	23.0	30.5	24.5	27.5	31.0	25.5	28.0	23.0	20.5	21.5
5	25.5	22.0	23.5	31.5	26.0	28.5	31.5	25.5	28.5	23.0	21.0	22.0
6	26.5	23.5	25.0	32.0	27.0	29.5	29.5	26.0	28.0	24.0	21.0	22.0
7	28.0	24.0	26.0	33.5	27.5	30.5	29.5	25.5	27.5	23.0	21.0	22.0
8	27.5	24.0	25.5	33.5	28.5	31.0	30.0	26.5	28.0	21.5	20.5	21.0
9	27.0	24.0	25.5	32.0	29.0	30.5	30.0	26.0	28.0	---	---	---
10	27.0	24.5	25.5	30.0	28.0	29.0	30.5	26.5	28.5	---	---	---
11	28.5	24.5	26.5	30.0	26.5	28.0	30.5	27.0	28.5	---	---	---
12	28.0	25.5	26.5	30.0	27.0	28.5	28.0	25.5	27.0	---	---	---
13	28.0	24.5	26.0	29.5	27.0	28.5	27.0	24.5	26.0	---	---	---
14	29.5	24.5	27.0	30.0	26.5	28.0	28.0	24.5	26.5	---	---	---
15	30.0	25.5	28.0	30.5	26.5	28.0	30.0	25.5	27.5	---	---	---
16	30.5	26.0	28.5	30.0	27.0	28.5	28.5	26.5	27.5	---	---	---
17	30.5	26.0	28.0	31.5	27.5	29.5	29.0	26.0	27.0	---	---	---
18	29.0	24.0	26.5	32.5	28.0	30.0	29.5	26.0	27.5	---	---	---
19	30.5	23.5	27.0	33.5	28.5	31.0	29.5	26.0	28.0	---	---	---
20	31.0	25.5	28.5	34.5	29.0	32.0	29.0	26.0	27.5	---	---	---
21	32.5	27.0	29.5	34.0	29.0	31.0	28.5	26.0	27.0	---	---	---
22	32.0	26.0	29.0	34.0	29.0	32.0	27.0	25.5	26.5	---	---	---
23	32.5	27.0	29.5	33.5	29.5	32.0	28.0	26.0	27.0	---	---	---
24	---	---	---	34.0	29.0	32.0	29.0	26.0	27.0	---	---	---
25	---	---	---	34.0	29.5	32.0	29.0	24.0	26.5	---	---	---
26	---	---	---	33.5	30.0	31.5	28.0	24.5	26.0	---	---	---
27	---	---	---	34.5	29.5	32.0	27.5	25.0	26.0	---	---	---
28	---	---	---	33.5	30.0	31.5	26.0	22.0	24.5	---	---	---
29	---	---	---	34.0	29.5	31.5	25.0	20.0	22.5	---	---	---
30	---	---	---	33.0	27.5	30.5	25.5	20.5	23.0	---	---	---
31	---	---	---	29.5	26.0	27.0	23.0	21.5	22.5	---	---	---

03404500 CUMBERLAND RIVER AT CUMBERLAND FALLS, KY--Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4	1	10	6	430	130	---	---	15	15		
2	480	3	7	5	110	65	---	---	15	15		
3	500	80	6	4	220	50	---	---	80	15		
4	70	20	7	4	55	35	---	---	220	50		
5	25	15	180	5	35	20	---	---	300	180		
6	15	7	260	190	25	15	---	---	190	120		
7	8	5	210	150	15	10	---	---	140	100		
8	10	4	140	70	50	10	---	---	220	130		
9	8	3	65	40	---	---	---	---	250	95		
10	6	3	40	25	---	---	---	---	100	50		
11	5	3	30	20	9	3	15	8	50	40		
12	7	3	20	15	9	6	15	15	40	30		
13	6	5	15	15	15	8	15	10	30	20		
14	10	5	15	9	30	10	15	15	25	20		
15	7	5	10	9	40	30	15	15	20	20		
16	15	4	10	9	45	30	15	10	20	20		
17	15	3	10	8	35	25	20	15	200	20		
18	7	4	10	9	35	15	20	15	550	210		
19	6	5	15	10	20	8	15	15	650	340		
20	6	5	15	8	8	6	20	15	330	180		
21	6	6	10	8	6	3	30	20	200	160		
22	4	3	10	7	4	2	40	25	170	85		
23	7	3	10	7	5	2	25	15	85	70		
24	8	4	20	15	4	2	15	15	75	55		
25	8	4	20	15	2	1	15	10	---	---		
26	6	3	25	20	10	1	15	9	---	---		
27	5	3	25	15	---	---	10	7	---	---		
28	9	4	380	25	---	---	8	6	---	---		
29	7	5	600	390	---	---	6	5	---	---		
30	9	5	550	340	---	---	5	3	---	---		
31	8	7	---	---	---	---	15	3	---	---		

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												

03404500 CUMBERLAND RIVER AT CUMBERLAND FALLS, KY--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.0	7.9	8.4	9.8	7.7	8.6	7.6	7.1	7.4	---	---	---
2	8.4	7.6	8.1	9.3	7.6	8.4	8.3	7.7	8.0	---	---	---
3	8.8	8.5	8.7	9.1	7.7	8.3	8.8	8.3	8.6	---	---	---
4	8.8	8.7	8.7	9.0	8.0	8.5	9.3	8.9	9.1	---	---	---
5	8.7	8.6	8.6	8.7	8.2	8.5	9.5	9.3	9.4	---	---	---
6	9.9	9.2	9.5	8.3	8.1	8.2	9.8	9.6	9.7	---	---	---
7	10.3	9.1	9.6	8.7	8.3	8.5	9.9	9.7	9.8	---	---	---
8	10.5	9.1	9.7	8.9	8.7	8.8	10.0	9.8	9.9	---	---	---
9	11.0	9.0	9.8	9.2	8.9	9.1	---	---	---	---	---	---
10	11.1	8.6	9.7	9.5	9.0	9.3	---	---	---	---	---	---
11	11.4	8.3	9.5	9.4	8.9	9.1	10.6	10.3	10.4	14.8	13.9	14.4
12	11.4	7.9	9.3	8.9	8.8	8.8	10.5	9.9	10.1	14.7	13.6	14.1
13	10.8	7.6	9.0	9.5	8.6	9.1	10.2	10.1	10.2	14.5	13.5	13.9
14	10.5	7.5	8.6	9.5	8.5	8.9	10.8	10.4	10.7	14.6	13.7	14.0
15	9.6	7.1	8.0	9.6	8.3	8.8	10.9	10.8	10.8	14.8	13.6	14.0
16	9.7	7.3	8.3	8.9	8.1	8.4	11.2	11.1	11.1	15.0	13.6	14.1
17	9.9	7.7	8.6	9.7	8.2	8.8	11.6	11.4	11.5	15.0	13.4	14.0
18	9.8	7.6	8.5	10.0	8.2	8.9	12.2	11.7	12.0	15.0	13.0	13.7
19	9.8	7.4	8.3	10.1	8.1	8.8	12.5	12.2	12.3	13.9	12.5	13.0
20	9.7	7.1	8.1	9.1	8.0	8.5	12.7	12.4	12.6	14.3	12.6	13.2
21	9.3	7.9	8.7	10.5	8.4	9.2	13.1	12.8	12.9	13.9	12.5	13.0
22	9.9	7.7	8.5	9.6	8.4	8.9	13.3	13.0	13.1	13.4	11.8	13.0
23	9.5	7.8	8.5	10.5	8.7	9.3	13.2	13.1	13.2	14.1	12.7	13.2
24	9.5	7.7	8.4	9.4	8.6	8.9	13.1	12.9	13.0	14.3	12.7	13.2
25	10.0	7.7	9.4	9.9	8.5	8.9	13.8	13.1	13.5	13.3	12.6	12.8
26	10.8	8.0	9.0	9.4	8.2	8.6	13.6	13.2	13.5	13.7	12.5	12.9
27	10.8	7.9	9.1	9.0	8.0	8.3	---	---	---	14.3	12.6	13.3
28	10.8	7.9	9.1	8.0	7.6	7.9	---	---	---	14.4	13.2	13.6
29	10.2	8.0	9.0	7.6	7.0	7.2	---	---	---	14.4	13.2	13.7
30	10.9	8.2	9.3	7.1	6.9	7.0	---	---	---	15.0	13.4	14.0
31	10.5	8.0	9.0	---	---	---	---	---	---	15.0	13.3	14.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	15.1	13.1	13.8				---	---	---	8.6	7.5	8.0
2	14.4	12.7	13.2				11.1	8.8	10.1	8.8	7.7	8.2
3	14.1	12.0	12.8				10.5	8.3	9.4	9.1	7.8	8.4
4	12.0	11.3	11.6				9.7	8.1	8.8	9.1	7.8	8.5
5	11.2	10.7	10.9				9.6	7.9	8.6	8.9	7.5	8.1
6	10.7	10.2	10.4				9.6	7.7	8.5	8.8	7.2	8.0
7	10.6	10.4	10.5				10.1	7.9	8.8	8.5	6.8	7.6
8	10.7	10.6	10.7				9.9	7.8	8.7	8.4	6.6	7.5
9	10.9	10.7	10.8				10.1	8.1	9.1	8.5	6.9	7.6
10	11.1	10.8	10.9				10.7	8.8	9.7	8.5	6.9	7.6
11	11.6	11.1	11.3				10.6	8.7	9.6	8.3	6.7	7.4
12	11.9	11.6	11.8				10.7	8.7	9.6	8.4	6.6	7.4
13	12.5	12.0	12.3				10.4	8.5	9.4	8.4	6.6	7.4
14	12.5	11.9	12.3				10.3	8.4	9.3	8.2	6.6	7.2
15	12.2	11.8	12.0				10.2	8.3	9.3	8.3	6.6	7.4
16	12.0	11.4	11.8				9.6	8.5	9.1	8.2	6.6	7.3
17	11.4	9.3	10.7				10.2	8.9	9.5	7.8	6.4	6.8
18	11.2	8.5	10.1				10.6	9.2	9.8	6.9	6.4	6.6
19	10.6	9.6	10.1				10.2	8.8	9.4	7.0	6.9	6.9
20	9.7	9.4	9.5				9.5	8.4	8.9	7.6	7.0	7.4
21	9.4	9.2	9.3				9.6	8.4	9.0	8.0	7.6	7.3
22	9.3	9.1	9.2				9.9	8.8	9.3	8.3	7.5	7.9
23	9.6	9.3	9.5				9.5	8.7	9.1	8.0	7.4	7.8
24	9.8	9.5	9.7				9.9	8.4	9.0	8.2	7.7	7.9
25	---	---	---				9.1	8.0	8.6	8.1	7.8	8.0
26	---	---	---				9.0	7.7	8.3	8.0	7.9	8.0
27	---	---	---				8.3	7.2	7.8	8.0	7.8	7.9
28	---	---	---				7.9	7.0	7.5	7.9	7.7	7.8
29	---	---	---				8.1	7.1	7.6	7.8	7.5	7.7
30	---	---	---				9.0	7.1	7.9	7.6	7.3	7.5
31	---	---	---				---	---	---	7.6	7.1	7.4

CUMBERLAND RIVER BASIN

03404500 CUMBERLAND RIVER AT CUMBERLAND FALLS, KY--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.5	7.1	7.3	7.6	6.1	6.7	9.2	7.1	8.1	8.1	7.3	7.6
2	7.6	7.1	7.4	7.6	6.1	6.8	8.9	6.6	7.7	7.4	7.0	7.2
3	7.6	7.3	7.4	7.8	6.3	7.1	8.7	6.7	7.7	7.0	5.6	6.3
4	7.6	7.4	7.5	8.1	6.3	7.2	8.5	6.7	7.6	7.4	5.0	6.2
5	7.8	7.3	7.6	8.0	6.2	7.0	8.5	6.3	7.3	7.3	6.7	7.1
6	7.9	7.1	7.5	7.9	6.1	6.9	8.3	6.3	7.2	7.5	7.0	7.3
7	8.0	7.0	7.4	7.9	5.9	6.8	8.3	6.5	7.3	7.7	7.4	7.5
8	7.7	6.9	7.2	7.7	5.7	6.6	8.3	6.4	7.2	8.2	7.5	7.7
9	8.3	6.9	7.5	7.2	5.5	6.2	8.5	6.5	7.4	---	---	---
10	8.0	7.0	7.4	7.0	5.4	6.0	8.2	6.4	7.2	---	---	---
11	8.4	6.8	7.5	7.1	5.9	6.5	8.2	6.2	7.1	---	---	---
12	8.9	6.6	7.6	6.8	6.3	6.5	7.7	6.7	7.2	---	---	---
13	9.7	6.7	8.0	7.1	6.4	6.7	7.6	6.9	7.2	---	---	---
14	10.3	6.6	8.2	7.5	6.5	6.9	8.2	7.1	7.7	---	---	---
15	10.5	6.2	8.2	7.7	6.6	7.1	8.8	6.8	7.2	---	---	---
16	10.6	6.0	8.2	7.6	6.6	7.0	8.2	6.3	7.2	---	---	---
17	9.6	6.3	7.9	8.0	6.6	7.1	9.2	6.4	7.5	---	---	---
18	9.4	6.5	7.9	8.1	6.3	7.1	9.5	6.3	7.7	---	---	---
19	9.1	6.7	7.7	9.0	6.1	7.4	9.5	6.2	7.6	---	---	---
20	8.8	6.3	7.5	9.3	5.8	7.3	8.8	6.2	7.3	---	---	---
21	8.2	5.9	7.0	9.6	5.6	7.4	7.0	6.3	6.5	---	---	---
22	8.1	6.0	7.0	9.7	5.5	7.5	6.5	6.3	6.4	---	---	---
23	7.7	5.8	6.8	10.5	5.4	7.8	6.6	6.4	6.5	---	---	---
24	---	---	---	10.5	5.8	8.0	7.3	6.4	6.8	---	---	---
25	---	---	---	10.2	5.8	7.9	8.2	6.4	7.2	---	---	---
26	---	---	---	9.5	5.8	7.5	8.4	6.3	7.2	---	---	---
27	---	---	---	9.6	6.1	7.8	9.5	6.3	7.7	---	---	---
28	---	---	---	9.8	6.0	7.6	9.7	6.7	8.1	---	---	---
29	---	---	---	9.3	6.2	7.6	9.3	7.0	8.1	---	---	---
30	---	---	---	9.3	6.5	7.8	9.4	6.8	7.9	---	---	---
31	---	---	---	9.8	6.6	7.6	8.3	6.8	7.6	---	---	---

03404500 CUMBERLAND RIVER AT CUMBERLAND FALLS, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	1920	314	3430	302	5	4.5	11700	852	27000
2	3450	511	5130	298	4	3.4	6120	539	8980
3	1940	94	507	297	3	2.3	3960	428	4570
4	1280	42	147	362	4	3.9	3060	335	2770
5	1020	24	67	1870	98	849	2420	224	1470
6	832	16	36	4060	577	6330	2160	136	796
7	638	13	22	3360	420	3830	2020	112	609
8	514	10	14	2540	254	1750	1790	93	451
9	437	9	10	1930	141	743	1560	75	317
10	380	7	6.9	1480	71	284	1430	57	219
11	345	6	5.2	1200	47	151	1330	39	139
12	319	9	7.6	1020	31	87	1270	23	79
13	309	9	7.6	904	20	49	1470	24	99
14	310	8	7.0	757	16	32	2490	72	503
15	330	11	10	667	12	22	2920	203	1600
16	336	14	12	634	10	17	2860	81	633
17	351	12	11	673	9	16	2520	20	135
18	352	10	9.1	745	9	18	2160	9	55
19	345	8	7.2	837	11	25	1840	7	34
20	317	6	5.3	815	10	22	1590	7	28
21	320	5	4.6	747	9	18	1440	10	37
22	331	9	7.9	726	9	18	1340	14	49
23	343	10	9.6	888	13	32	1230	14	47
24	463	12	15	1200	22	70	1250	11	36
25	493	11	15	1370	30	110	1230	7	25
26	417	7	7.5	1300	35	122	1100	8	23
27	388	6	6.2	1310	35	125	970	9	23
28	355	5	4.9	3000	205	3390	943	10	24
29	329	5	4.3	15100	1200	49500	900	9	23
30	314	6	5.4	15100	1100	45000	867	9	20
31	310	6	5.4	---	---	---	340	7	17
TOTAL	19788	---	9537.7	65492	---	112624.1	68780	---	50811
		JANUARY			FEBRUARY			MARCH	
1	832	6	14	1350	9	33	4580	78	968
2	941	5	14	1450	9	35	4250	45	513
3	1090	5	14	1990	34	257	3810	30	307
4	1110	5	15	4860	520	7730	3350	22	200
5	1110	5	13	8550	1340	31600	2950	19	152
6	1110	5	16	10300	1430	39600	2630	18	124
7	1040	6	18	11000	1210	35800	2430	17	112
8	985	7	19	10700	1190	34400	2240	16	98
9	940	8	20	8910	896	21900	2030	16	86
10	900	8	19	5960	351	5790	1850	15	76
11	860	8	19	4520	154	1890	1860	15	77
12	840	8	18	3680	107	1060	1980	18	99
13	810	5	11	3010	82	670	2280	25	152
14	778	4	8.1	2640	70	495	2560	31	215
15	748	5	11	2490	61	414	4720	88	1280
16	720	6	12	2500	58	394	8320	280	6410
17	700	6	11	8640	181	5470	8390	209	4820
18	680	6	10	24000	893	59600	6040	77	1270
19	790	6	13	24800	1210	80900	4580	63	774
20	1320	8	30	21200	529	30500	4590	59	735
21	1840	21	107	18500	263	13200	4030	56	606
22	1880	27	137	13400	170	6200	3320	52	469
23	1690	20	92	6950	150	2730	2810	49	371
24	1650	12	52	5000	127	1730	2590	43	300
25	1680	10	44	4420	70	838	2350	30	189
26	1710	9	40	3960	54	575	2120	11	62
27	1740	7	34	3660	52	514	1880	7	37
28	1650	5	24	4260	72	841	1760	7	32
29	1600	5	23	---	---	---	1630	6	26
30	1500	5	22	---	---	---	1510	5	21
31	1400	8	30	---	---	---	1410	4	17
TOTAL	36644	---	910.1	222700	---	385166	100850	---	20598

CUMBERLAND RIVER BASIN

03404500 CUMBERLAND RIVER AT CUMBERLAND FALLS, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			MAY			JUNE	
1	1330	3	12	912	13	32	1430	307	1180
2	1270	12	41	867	18	42	1180	210	673
3	1220	18	61	780	15	32	1770	321	1540
4	1180	8	27	729	13	25	1310	265	937
5	1140	6	19	678	11	19	978	200	528
6	1110	5	15	634	9	15	775	146	305
7	1120	3	10	605	7	12	835	116	264
8	1110	2	7.0	586	6	9.3	1060	172	494
9	1120	2	7.3	563	5	7.2	786	127	269
10	1040	2	6.3	549	5	6.9	1020	138	381
11	996	2	5.5	520	5	6.6	1020	133	369
12	970	2	5.6	484	5	6.6	826	88	196
13	942	2	4.5	465	10	12	803	58	127
14	927	1	3.0	486	15	20	702	38	72
15	912	1	2.2	576	16	25	587	23	36
16	893	1	1.5	698	15	28	497	19	25
17	887	0	.97	1510	162	960	424	16	18
18	887	0	.42	1510	362	1480	359	15	15
19	879	0	.40	1370	250	922	317	10	8.9
20	844	1	1.7	1130	177	542	290	10	8.0
21	874	2	3.8	965	140	366	265	13	9.3
22	962	2	6.1	832	116	261	245	13	8.5
23	1100	17	51	800	98	213	232	10	6.0
24	1060	43	124	1560	138	773	217	10	6.1
25	944	7	18	2150	677	3850	207	10	5.6
26	881	1	2.1	1760	448	2150	193	9	4.5
27	838	1	3.1	1640	236	1050	187	7	3.4
28	803	2	4.2	1770	254	1220	196	6	3.0
29	813	1	3.0	1880	287	1470	297	28	24
30	858	3	8.2	1970	426	2260	379	28	29
31	---	---	---	1700	378	1730	---	---	---
TOTAL	29910	---	454.89	32679	---	19545.6	19387	---	7545.3
		JULY			AUGUST			SEPTEMBER	
1	408	24	26	137	12	4.6	1010	135	711
2	338	21	19	137	10	3.5	4720	1030	13900
3	270	19	14	132	7	2.4	7750	1190	24800
4	229	16	9.7	126	5	1.8	5250	372	5430
5	239	16	10	123	11	3.7	3850	377	3920
6	241	13	8.3	121	18	5.8	3890	256	2690
7	225	12	7.0	118	16	5.2	3910	159	1680
8	204	11	6.2	114	15	4.6	2410	110	728
9	201	15	8.3	110	14	4.1	806	82	179
10	239	11	7.1	112	12	3.7	664	58	104
11	910	92	278	129	12	4.5	571	43	66
12	995	111	299	819	102	295	528	36	51
13	1010	100	272	938	116	296	546	25	37
14	778	69	146	776	64	138	576	27	42
15	701	57	109	518	12	17	577	27	42
16	943	78	200	354	5	4.9	508	22	30
17	967	103	277	303	6	4.8	418	20	22
18	612	62	121	274	8	6.2	371	19	19
19	436	50	59	283	9	6.9	352	18	17
20	342	39	36	625	48	123	333	16	15
21	288	29	22	1140	170	550	387	17	19
22	256	19	13	1650	229	1080	590	39	62
23	252	13	9.0	1310	219	769	510	30	42
24	223	7	4.2	677	192	351	587	37	59
25	208	5	3.0	451	152	185	545	32	48
26	206	9	5.2	343	117	108	731	36	77
27	195	26	14	293	128	103	842	55	126
28	174	26	12	258	32	22	650	42	73
29	156	28	12	446	31	39	525	29	41
30	144	18	7.1	540	39	56	440	17	21
31	138	15	5.6	520	34	48	---	---	---
TOTAL	12528	---	2019.7	13877	---	4266.7	44847	---	55051
YEAR	667482		668530.09						

03404820 LAUREL RIVER AT MUNICIPAL DAM NEAR CORBIN, KY

LOCATION.--Lat 36°58'13", long 84°07'11", Laurel County, Hydrologic Unit 05130101, on left bank adjacent to State Highway 709, 200 ft upstream from Corbin Municipal Dam, 0.1 mi upstream from Lynn Camp Creek, 2.0 mi northwest of Corbin, and at mile 21.4.

DRAINAGE AREA.--140 mi².

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 1,000.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge: Dec. 23-31, Jan. 11-17, 31, Feb. 1. Records good except for estimated daily discharge, which is poor. Diversion from gage pool at station for municipal supply of Corbin.

AVERAGE DISCHARGE.--13 years, 236 ft³/s, 22.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,300 ft³/s, May 7, 1984, gage height, 27.46 ft; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 18	0430	*3,620	*23.08	No other peak greater than base discharge.			

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	35	508	56	80	218	54	37	44	13	.00	45
2	153	34	410	53	95	193	53	33	36	11	.00	145
3	66	39	272	51	285	178	49	28	29	7.7	.00	95
4	34	105	206	52	806	158	48	25	26	6.9	.00	53
5	23	408	177	49	674	141	46	23	25	6.3	.00	70
6	17	365	171	45	661	136	44	22	35	2.3	.00	116
7	14	234	137	41	982	126	47	21	48	.69	.00	47
8	12	160	113	38	714	108	46	26	300	.00	.00	29
9	11	111	99	35	449	96	42	22	194	1.7	.00	21
10	10	85	85	33	335	93	39	18	85	188	.00	17
11	11	69	82	31	296	96	38	16	90	239	.00	14
12	10	59	118	29	222	105	37	15	70	199	.00	109
13	8.7	55	558	28	179	174	37	14	75	90	.00	153
14	10	51	713	26	174	271	36	17	50	42	.00	57
15	33	48	408	25	177	519	37	32	36	44	.00	35
16	52	52	286	24	188	547	37	30	29	45	.00	27
17	31	110	224	23	1650	373	38	24	25	31	.00	24
18	24	113	173	38	3390	278	36	18	20	27	17	21
19	20	78	123	167	1970	232	35	42	16	22	21	22
20	21	64	103	413	861	186	36	86	14	17	23	22
21	504	56	95	278	520	140	75	43	13	13	45	22
22	658	59	87	210	375	116	90	29	10	11	16	23
23	303	106	82	164	301	103	62	24	8.6	9.7	11	22
24	135	89	78	130	255	96	46	37	4.7	7.5	8.0	48
25	113	71	70	116	254	86	41	140	3.9	6.2	5.1	75
26	83	69	66	137	215	79	40	104	.07	4.7	3.2	41
27	62	1060	62	139	244	78	37	174	.00	.83	1.6	31
28	51	2170	59	131	274	79	38	250	.00	.16	3.6	27
29	43	2280	56	106	---	70	48	140	.02	.00	12	22
30	38	1210	54	96	---	63	47	83	14	.00	9.1	20
31	36	---	52	86	---	57	---	57	---	.00	9.0	---
TOTAL	2597.7	9445	5727	2850	16626	5195	1359	1630	1301.29	1046.68	184.60	1453
MEAN	83.8	315	185	91.9	594	168	45.3	52.6	43.4	33.8	5.95	48.4
MAX	658	2280	713	413	3390	547	90	250	300	239	45	153
MIN	8.7	34	52	23	80	57	35	14	.00	.00	.00	14
CFSM	.60	2.25	1.32	.66	4.24	1.20	.32	.38	.31	.24	.04	.35
IN	.69	2.51	1.52	.76	4.42	1.38	.36	.43	.35	.28	.05	.39

CAL YR 1985 TOTAL 59530.48 MEAN 163 MAX 2280 MIN .00 CFSM 1.16 IN 15.82
WTR YR 1986 TOTAL 49415.27 MEAN 135 MAX 3390 MIN .00 CFSM .96 IN 13.13

CUMBERLAND RIVER BASIN

03404900 LYNN CAMP CREEK AT CORBIN, KY

LOCATION.--Lat 36°57'05", long 84°05'37", Whitley County, Hydrologic Unit 05130101, on left bank 40 ft downstream from bridge on State Highway 312, (East Masters Street) at Corbin, 0.8 mi downstream from East Fork Lynn Camp Creek, and at mile 3.9.

DRAINAGE AREA.--53.8 mi².

PERIOD OF RECORD.--Annual maximums, water years 1957-73, October 1973 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,049.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Oct. 1, 1958 to Feb. 3, 1964, crest-stage gage at site 1,500 ft downstream at samr datum.

AVERAGE DISCHARGE.--13 years, 36.2 ft³/s, 21.76 in/yr.

REMARKS.--Estimated daily discharges: Dec. 19-30, Jan. 2, 3, 7-17, 29. Records good except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 9,000 ft³/s, Jan. 29, 1957, gage height, 22.5 ft, before construction of cutoff; minimum daily, 0.15 ft³/s, Sept. 13, 15, 1983, gage height, 2.62 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge base of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 18	0200	*1,710	*7.73	No other peak greater then base discharge			

Minimum daily discharge, 1.0 ft³/s, June 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276	7.6	132	22	29	99	23	14	5.5	5.4	2.3	235
2	213	7.6	127	20	28	85	22	13	4.6	12	2.1	109
3	55	17	73	19	301	78	20	11	3.9	7.7	2.0	80
4	32	100	60	18	384	69	19	10	3.9	5.4	1.6	42
5	22	209	53	17	330	63	17	10	3.0	4.3	1.5	84
6	17	86	50	16	259	60	17	9.6	3.4	3.9	1.5	28
7	13	57	41	15	369	55	17	9.1	5.5	3.7	1.7	15
8	9.6	43	37	14	187	48	17	10	40	3.5	1.8	11
9	7.7	30	32	13	123	46	17	7.9	14	20	3.5	8.2
10	6.9	24	28	12	98	44	15	5.9	8.6	115	5.5	6.7
11	6.1	20	28	11	91	70	13	4.8	11	108	6.0	5.5
12	4.9	18	44	11	67	54	13	4.4	26	55	6.5	57
13	4.3	16	161	10	59	72	12	4.4	11	17	3.0	21
14	9.1	14	121	9.5	79	90	12	9.9	6.1	19	1.7	12
15	28	13	77	9.2	76	413	12	9.5	4.7	28	1.1	8.5
16	15	22	65	9.0	97	244	12	5.9	4.0	19	3.8	6.4
17	9.7	53	54	8.6	906	139	13	3.9	4.7	14	23	5.6
18	7.4	29	44	11	1340	99	13	2.9	3.4	8.6	12	5.2
19	6.6	22	39	142	504	85	13	2.7	2.3	6.0	5.3	6.4
20	7.0	19	34	111	317	67	14	3.0	1.8	5.4	3.5	8.1
21	48	17	30	71	191	54	31	2.8	2.0	4.7	2.6	7.6
22	38	33	28	60	135	46	23	2.8	1.2	4.7	2.2	6.7
23	20	41	27	46	109	44	17	4.7	1.3	4.7	2.2	7.0
24	17	28	26	38	100	40	14	9.2	1.2	4.7	2.0	28
25	16	23	24	35	89	35	13	14	1.0	4.8	1.5	13
26	13	23	22	40	73	33	13	12	1.0	4.4	1.5	8.6
27	11	298	21	44	135	33	13	44	1.0	6.9	2.7	6.8
28	11	552	20	41	128	32	20	20	8.9	7.2	4.3	6.2
29	8.8	588	19	37	---	28	25	15	16	2.9	4.2	6.3
30	8.3	179	18	35	---	27	16	10	9.3	2.1	2.9	5.5
31	7.6	---	17	31	---	25	---	7.3	---	2.2	5.7	---
TOTAL	949.0	2589.2	1552	976.3	6604	2377	496	293.7	210.3	510.2	121.2	850.3
MEAN	30.6	86.3	50.1	31.5	236	76.7	16.5	9.47	7.01	16.5	3.91	28.3
MAX	276	588	161	142	1340	413	31	44	40	115	23	235
MIN	4.3	7.6	17	8.6	28	25	12	2.7	1.0	2.1	1.1	5.2
CFSM	.57	1.60	.93	.59	4.39	1.43	.31	.18	.13	.31	.07	.53
IN	.66	1.79	1.07	.68	4.57	1.64	.34	.20	.15	.35	.08	.59

CAL YR 1985 TOTAL 23195.49 MEAN 63.5 MAX 874 MIN .69 CFSM 1.18 IN 16.04
WTR YR 1986 TOTAL 17529.2 MEAN 48.0 MAX 1340 MIN 1.0 CFSM .89 IN 12.12

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03406500 ROCKCASTLE RIVER AT BILLOWS, KY

LOCATION.--Lat 37°10'16", long 84°17'46", Laurel County, Hydrologic Unit 05130102, on left bank 200 ft upstream from bridge on State Highway 80 at Billows, 1.1 mi downstream from Hawk Creek, 0.9 mi upstream from Pine Creek, 13 mi west of London, and at mile 24.4.

DRAINAGE AREA.--604 mi².

PERIOD OF RECORD.--July 1936 to current year.

REVISED RECORDS.--WSP 1436: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 802.90 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 19, 1940, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 21-23, Jan. 11-17, and Jan. 28-30. Records good except for estimated daily discharges, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--50 years, 926 ft³/s, 20.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,000 ft³/s, Dec. 9, 1978, gage height, 47.17 ft; minimum, 0.8 ft³/s, Sept. 9, 1957, gage height, 0.56 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1913 reached a stage of about 40 ft from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	2100	13,100	21.91	Feb. 18	1200	*14,400	*23.12

Minimum daily discharge, 7.5 ft³/s, Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	107	1950	220	299	703	260	182	324	24	15	18
2	39	114	1520	212	323	645	247	165	253	25	13	20
3	171	125	1100	201	1090	625	239	154	202	28	12	20
4	121	374	845	197	3730	597	229	145	187	42	11	51
5	80	724	721	194	2690	547	216	135	159	48	9.7	129
6	59	735	658	183	2180	513	205	130	145	41	8.5	168
7	46	554	553	172	3660	486	200	127	374	34	8.0	152
8	38	415	471	157	3000	436	196	123	767	28	7.5	86
9	33	315	423	144	2020	388	187	118	1020	25	7.9	54
10	30	252	377	131	1540	371	175	114	642	23	8.7	37
11	27	213	344	130	1330	374	166	107	715	21	13	29
12	25	183	383	120	1040	444	159	99	588	20	12	50
13	22	164	969	114	840	1850	153	92	433	20	9.8	160
14	22	158	2680	108	755	4140	149	87	323	23	8.4	153
15	39	153	1850	100	755	2400	147	96	244	39	7.7	87
16	133	147	1390	98	704	1830	145	119	194	72	7.8	58
17	134	213	1100	94	3930	1430	147	145	155	99	9.5	43
18	88	376	864	129	13300	1170	147	122	126	83	11	34
19	65	296	652	162	6130	1010	143	104	104	60	13	29
20	56	251	537	442	2900	840	136	119	87	44	18	26
21	251	213	480	559	2000	657	160	120	75	36	61	25
22	914	273	460	482	1510	546	237	131	65	35	102	83
23	381	867	430	457	1230	487	256	110	57	39	53	119
24	245	645	411	400	1030	449	225	96	50	39	35	435
25	230	465	374	381	928	403	202	91	43	30	25	720
26	223	377	309	398	788	366	187	91	37	24	21	278
27	170	5120	274	406	795	355	182	308	33	21	19	169
28	139	11700	268	390	821	349	176	1590	30	18	16	121
29	117	9420	258	360	---	319	180	1040	28	16	15	92
30	105	3410	235	340	---	293	187	639	26	14	15	72
31	99	---	219	320	---	276	---	439	---	14	13	---
TOTAL	4127	38359	23105	7801	61318	25299	5638	7138	7486	1085	586.5	3518
MEAN	133	1279	745	252	2190	816	188	230	250	35.0	18.9	117
MAX	914	11700	2680	559	13300	4140	260	1590	1020	99	102	720
MIN	22	107	219	94	299	276	136	87	26	14	7.5	18
CFSM	.22	2.12	1.23	.42	3.63	1.35	.31	.38	.41	.06	.03	.19
IN	.25	2.36	1.42	.48	3.78	1.56	.35	.44	.46	.07	.04	.22

CAL YR 1985	TOTAL	269297	MEAN	738	MAX	11700	MIN	13	CFSM 1.22	IN 16.59
WTR YR 1986	TOTAL	185460.5	MEAN	508	MAX	13300	MIN	7.5	CFSM .84	IN 11.42

03407500 BUCK CREEK NEAR SHOPVILLE, KY

LOCATION.--Lat 37°12'38", long 84°27'52", Pulaski County, Hydrologic Unit 05130103, on right bank on downstream side of bridge on State Highway 461, 0.2 mi downstream from Brush Creek, 3.7 mi north of Shopville, 11.5 mi northeast of Somerset, and at mile 31.8.

DRAINAGE AREA.--165 mi^2.

PERIOD OF RECORD.--October 1952 to current year. Monthly discharge only, October to December 1952, published in WSP 1726.

REVISED RECORDS.--WSP 1436: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 831.594 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1953, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Estimated daily discharge: Nov. 28 to Dec. 22, Dec. 26-31, Jan. 3-17, and Jan. 29 to Feb. 1. Records good except for estimated daily discharges, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--34 years, 274 ft^3/s, 22.55 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,900 ft^3/s, Feb. 27, 1962, gage height, 23.21 ft, from rating curve extended above 7,200 ft^3/s, on basis of contracted-opening measurement at gage height, 19.55 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	0500	3,800	8.75	Feb. 18	0330	*4,070	*9.10

Minimum daily discharge, 0.06 ft^3/s, Aug. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	47	500	63	56	177	68	34	77	.74	.99	1.2
2	8.7	42	390	61	76	163	66	32	59	97	.77	2.6
3	17	40	300	58	348	158	63	29	48	36	.67	2.2
4	18	58	260	55	661	145	60	27	43	16	.46	1.8
5	13	99	220	52	479	138	58	25	44	9.6	.31	169
6	9.8	99	190	50	569	134	56	23	67	6.1	.19	40
7	7.7	70	170	47	1330	125	61	21	80	4.1	.12	19
8	7.2	54	140	45	831	108	56	21	248	2.8	.07	12
9	4.5	49	130	43	810	104	50	20	216	1.8	.07	7.7
10	2.9	48	110	40	451	100	45	20	115	15	.17	5.3
11	1.8	42	100	38	298	129	44	19	84	13	.53	3.3
12	1.3	37	120	37	235	136	42	16	64	6.5	.44	25
13	.89	34	520	35	210	2090	40	15	47	5.8	.23	21
14	.94	41	480	34	207	1110	39	18	36	8.7	.11	17
15	1.4	47	380	32	211	653	39	245	30	882	.07	11
16	10	70	310	31	257	411	38	146	24	331	.06	7.9
17	19	392	260	30	2090	303	36	71	20	263	.22	5.7
18	14	206	220	40	2870	247	37	52	16	153	.61	4.2
19	8.6	141	200	114	1080	228	38	40	13	44	.42	3.3
20	5.3	116	170	164	602	186	36	33	11	32	.20	3.4
21	84	84	150	123	433	152	84	28	8.4	73	44	6.9
22	87	76	140	106	332	132	98	24	6.9	19	18	11
23	59	94	130	89	270	125	75	21	5.5	13	9.3	11
24	92	80	117	78	243	116	59	21	4.5	8.9	5.5	485
25	89	76	106	76	233	106	51	31	3.9	6.7	3.3	169
26	70	70	96	77	201	99	47	29	2.8	5.1	1.9	68
27	47	1580	88	71	237	96	42	988	2.6	3.8	1.3	36
28	36	2800	82	64	214	90	39	642	2.2	3.0	.97	28
29	32	1500	78	62	---	81	39	265	1.4	2.5	.46	22
30	30	900	73	60	---	77	39	159	1.2	1.6	.29	17
31	50	---	69	58	---	72	---	109	---	1.1	.20	---
TOTAL	828.60	8992	6299	1933	15834	7991	1545	3224	1381.4	2065.84	91.93	1216.5
MEAN	26.7	300	203	62.4	566	258	51.5	104	46.0	66.6	2.97	40.5
MAX	92	2800	520	164	2870	2090	98	988	248	882	44	485
MIN	.57	34	69	30	56	72	36	15	1.2	.74	.06	1.2
CFSM	.16	1.82	1.23	.38	3.43	1.56	.31	.63	.28	.40	.02	.25
IN	.19	2.03	1.42	.44	3.57	1.80	.35	.73	.31	.47	.02	.27

CAL YR 1985 TOTAL 63477.84 MEAN 174 MAX 2800 MIN .05 CFSM 1.05 IN 14.31
WTR YR 1986 TOTAL 51402.27 MEAN 141 MAX 2870 MIN .06 CFSM .85 IN 11.59

03408500 NEW RIVER AT NEW RIVER, TN

LOCATION.--Lat 36°23'08", long 84°33'17", Scott County, Hydrologic Unit 05130104, on left bank at town of New River, 700 ft downstream from Phillips Creek, 1000 ft downstream from bridge on U. S. Highway 27, 1.7 mi downstream from Brimstone Creek, and at mile 8.6.

DRAINAGE AREA.--382 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1934 to current year. Gage-height records collected in this vicinity 1908-52 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1436: Drainage area. WRD. TN-73: 1939(M), 1951(M), 1970(M).

GAGE.--Water-stage recorder. Datum of gage is 1,092.67 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 22, 25-31, Jan. 8-16, and Jan. 28-30. Records good except for periods of estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--52 years, 734 ft³/s, 26.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,700 ft³/s, May 27, 1973, gage height, 37.91 ft, from high water mark in gage well, from rating curve extended above 27,000 ft³/s, on basis of slope-area and contracted-opening measurements of peak flow; no flow part of each day Aug. 12-15, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 23, 1929, reached a stage of 41.2 ft, discharge, 74,700 ft³/s, estimated, based on field survey at old U.S. Weather Bureau gage, 1,200 ft upstream at datum 3.41 ft higher.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 29	0230	14,100	16.22	Feb. 18	0730	*16,200	*17.37

Minimum daily discharge, 9.2 ft³/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1190	83	1340	353	265	657	243	176	395	80	19	175
2	1100	87	1160	357	277	621	229	162	1270	105	16	1450
3	520	141	872	359	321	600	218	147	707	229	14	2150
4	564	258	730	349	345	534	206	132	693	136	14	580
5	318	804	636	324	997	476	190	125	532	81	12	371
6	220	553	596	285	1980	442	182	120	517	59	11	255
7	168	387	472	266	1870	399	204	114	333	47	9.2	175
8	135	313	410	250	1390	344	281	120	307	39	9.6	126
9	113	244	373	240	1050	306	636	118	564	32	9.6	99
10	100	204	331	220	847	294	468	99	1130	34	11	82
11	90	182	303	210	748	328	396	89	930	91	642	70
12	82	167	353	200	569	338	348	86	640	111	465	179
13	75	152	594	190	458	400	307	103	398	109	170	213
14	73	140	878	180	439	740	278	100	278	174	99	125
15	79	133	799	170	465	1090	261	90	214	213	69	90
16	77	136	712	160	514	1130	241	78	173	165	50	116
17	73	361	603	150	4370	923	217	68	141	166	48	131
18	68	398	506	150	12200	765	204	59	117	153	48	105
19	60	322	387	300	3410	1910	187	67	100	90	49	87
20	56	277	356	543	1770	1710	176	90	87	64	47	107
21	55	242	333	424	1220	1060	270	97	79	49	142	117
22	214	580	300	387	943	802	321	74	70	47	70	106
23	181	996	314	352	782	659	278	1890	61	38	50	92
24	146	746	300	313	683	555	242	4840	55	30	38	331
25	188	552	280	306	662	464	225	3880	49	24	29	170
26	151	437	260	358	552	403	215	1670	42	24	28	119
27	125	529	240	344	637	376	204	1430	38	22	41	90
28	109	6210	220	330	728	340	199	1260	50	19	135	73
29	99	8000	200	310	---	303	242	1010	97	22	210	69
30	90	2200	190	280	---	279	212	744	78	32	116	76
31	82	---	180	269	---	262	---	535	---	24	90	---
TOTAL	6601	25834	15228	8929	40492	19510	7880	19593	10145	2509	2761.4	7929
MEAN	213	861	491	288	1446	629	263	632	338	80.9	89.1	264
MAX	1190	8000	1340	543	12200	1910	636	4840	1270	229	642	2150
MIN	55	83	180	150	265	262	176	59	38	19	9.2	69

CAL YR 1985 TOTAL 194922 MEAN 534 MAX 8000 MIN 36
WTR YR 1986 TOTAL 167411.4 MEAN 459 MAX 12200 MIN 9.2

03408500 NEW RIVER AT NEW RIVER, TN--Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-67, 1975 to September 1986 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to September 1986.
pH: October 1976 to September 1986.
WATER TEMPERATURE: October 1976 to September 1986.
DISSOLVED OXYGEN: October 1976 to September 1986.
TURBIDITY: December 1976 to September 1986.
OXIDATION-REDUCTION POTENTIAL: December 1976 to September 1977.
SUSPENDED SEDIMENT DISCHARGE: October 1976 to September 1986.

INSTRUMENTATION.--Five parameter water-quality monitor and sediment pumping sampler since Oct. 21, 1976.

REMARKS.--Interruptions in the record were due to malfunction of the instruments.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 896 microsiemens, July 11, 1985; minimum, 44 microsiemens, Apr. 4, 1977.
pH: 8.6 units, May 16, 1983; minimum, 5.3 units, Nov. 17, 1978.
WATER TEMPERATURE: Maximum, 32.5CC, July 16, 1980, minimum, 0.0CC, on many days in 1977, 1981, 1983, 1984, 1986.
DISSOLVED OXYGEN: Maximum, 14.4 mg/L, Dec. 6, 1976; minimum, 5.6 mg/L, July 26, 1977.
TURBIDITY: Maximum, 3,000 JTU, Sept. 2, 1982; minimum, 0 JTU, on several days in 1982-86.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,190 mg/L, Aug. 8, 1981; minimum daily mean, 1 mg/L, on many days in 1976, 1984, 1986.
SEDIMENT LOADS: Maximum daily, 262,000 tons, Apr. 5, 1977; minimum daily, 0.00 ton, Oct. 21-24, 27, 1980.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 518 microsiemens, Oct. 25; minimum, 102 microsiemens, Feb. 18.
pH: Maximum, 7.7 units, May 5; minimum, 6.8 units, Nov. 28, 29, May 25, Sept. 3.
WATER TEMPERATURE: Maximum, 30.0CC, July 21, 22, 24; minimum recorded, 0.0CC, Dec. 26, 30, Jan. 9.
DISSOLVED OXYGEN: Maximum, 13.4 mg/L, Dec 22, 30; minimum, 5.7 mg/L, July 30 to Aug. 1.
TURBIDITY: Maximum, 900 JTU, Sept 3; minimum, 0 JTU, June 25.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 563 mg/L, Nov. 28; minimum daily mean, 1 mg/L, Feb. 14, 15, April 24.
SEDIMENT LOADS: Maximum daily, 13,900 tons, Nov. 28; minimum daily, 0.09 ton, Aug. 10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (F^3/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1985						
02...	1745	907	14.5	250	95	233
NOV						
13...	1600	149	13.5	272	5	2.0
DEC						
19...	1200	391	1.5	210	2	2.1
FEB 1986						
03...	1530	325	3.5	230	1	0.88
MAR						
18...	1540	773	10.5	175	5	10
APR						
29...	1400	259	18.5	272	3	2.1
JUN						
12...	1330	603	22.0	178	54	88
JUL						
21...	1525	45	28.5	335	7	0.86
SEP						
03...	1310	1500	19.0	159	325	1320

03408500 NEW RIVER AT NEW RIVER, TN--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	344	160	252	362	348	354	174	158	166	290	274	283
2	226	172	189	352	346	349	190	174	181	294	284	290
3	256	248	252	354	346	351	200	188	195	292	282	286
4	318	242	273	370	352	359	210	196	202	282	252	266
5	318	264	290	378	324	360	212	202	207	252	238	245
6	266	242	253	318	262	283	220	206	213	242	236	238
7	246	236	240	262	246	253	224	218	220	238	232	236
8	252	242	247	248	242	245	232	222	228	242	234	237
9	260	248	254	254	244	248	240	226	233	244	194	235
10	270	256	263	256	250	253	242	236	238	254	244	248
11	282	264	273	260	254	257	252	240	247	258	214	249
12	294	278	286	268	258	263	258	250	253	260	236	256
13	298	292	295	276	266	270	258	240	251	260	254	257
14	---	---	---	282	272	276	246	234	243	266	188	253
15	---	---	---	288	280	283	232	212	224	270	228	265
16	318	312	316	292	286	289	212	198	205	272	264	269
17	324	314	320	304	290	296	204	196	199	272	264	268
18	336	324	331	314	304	310	206	196	204	272	264	268
19	340	330	337	318	302	311	214	206	209	268	258	263
20	350	338	346	300	266	277	218	210	213	270	264	267
21	358	348	353	266	260	264	226	216	221	270	264	267
22	390	354	369	262	252	258	230	222	226	266	238	254
23	444	392	422	266	222	245	234	226	231	236	226	231
24	502	448	466	220	202	209	242	232	237	230	222	226
25	518	406	479	204	196	200	250	238	243	---	---	---
26	402	340	360	210	198	204	262	246	256	---	---	---
27	344	340	343	210	200	204	268	260	263	226	218	222
28	350	340	345	206	106	153	270	262	266	---	---	---
29	362	350	356	136	112	125	272	260	268	---	---	---
30	374	364	370	160	134	147	280	266	275	234	226	230
31	374	360	366	---	---	---	278	272	275	232	224	227

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	228	222	225	232	216	226	250	244	248	281	276	279
2	232	224	228	218	206	211	256	248	253	290	281	285
3	234	224	228	212	204	208	264	256	259	296	285	292
4	242	232	238	212	204	207	268	262	265	301	291	297
5	240	198	231	220	210	216	272	266	269	302	296	299
6	210	164	193	226	218	222	274	268	272	300	296	298
7	164	156	160	230	222	226	276	270	274	301	295	297
8	166	158	162	234	226	230	278	266	272	307	296	300
9	166	160	163	236	228	233	282	256	272	312	301	306
10	178	166	171	242	232	237	272	254	260	315	307	312
11	186	172	179	248	238	243	252	206	237	316	312	314
12	194	182	189	252	242	246	226	216	220	316	284	300
13	200	192	197	258	244	250	220	216	218	294	285	288
14	204	198	201	262	242	257	228	218	223	299	291	294
15	210	200	205	238	188	215	234	226	230	306	297	302
16	220	210	214	190	170	179	236	230	233	307	301	304
17	214	132	181	176	166	172	---	---	---	306	301	304
18	122	102	112	180	174	176	---	---	---	310	305	308
19	150	122	136	204	174	184	---	---	---	313	299	306
20	164	148	156	174	154	159	---	---	---	312	301	308
21	178	164	171	172	160	166	---	---	---	322	308	314
22	192	180	186	182	170	176	---	---	---	326	320	324
23	202	190	196	192	182	187	---	---	---	327	161	256
24	216	202	209	200	190	195	---	---	---	151	122	138
25	224	214	218	208	200	203	---	---	---	140	111	125
26	238	224	231	218	208	213	---	---	---	148	139	144
27	240	232	236	224	216	220	---	---	---	166	146	157
28	234	230	232	230	224	227	---	---	---	179	165	174
29	---	---	---	234	226	231	278	276	277	176	170	172
30	---	---	---	246	234	238	281	276	278	184	176	180
31	---	---	---	248	242	245	---	---	---	195	184	189

03408500 NEW RIVER AT NEW RIVER, TN--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	203	195	198	344	332	338	352	345	347	304	274	287
2	217	181	206	345	325	339	358	350	352	272	172	246
3	199	186	190	374	334	351	364	356	360	180	151	162
4	199	183	192	338	323	331	375	367	370	198	183	191
5	201	187	194	338	326	331	384	375	378	211	198	206
6	215	188	206	337	330	334	385	381	359	222	211	216
7	197	173	184	346	336	342	---	---	---	230	222	226
8	220	197	211	355	342	348	---	---	---	234	229	232
9	230	201	224	365	354	358	---	---	---	239	232	236
10	186	166	176	363	342	354	---	---	---	246	237	242
11	186	165	180	350	326	340	---	---	---	250	244	248
12	203	165	184	345	327	334	---	---	---	264	236	250
13	218	204	211	372	344	357	---	---	---	267	257	260
14	221	214	218	366	320	343	---	---	---	268	261	264
15	225	218	222	318	291	302	---	---	---	264	261	262
16	232	225	228	322	298	306	---	---	---	263	257	261
17	239	230	235	---	---	---	---	---	---	263	258	260
18	246	238	242	---	---	---	---	---	---	266	261	264
19	255	246	251	---	---	---	---	---	---	273	266	270
20	266	254	260	---	---	---	---	---	---	278	271	275
21	273	264	266	334	331	333	---	---	---	287	275	280
22	279	268	273	338	332	335	301	297	300	292	287	290
23	284	275	279	339	334	336	306	300	303	297	291	294
24	289	282	285	336	332	334	312	303	306	348	297	328
25	299	288	293	334	329	332	317	307	311	385	348	356
26	305	296	299	333	318	327	337	314	320	391	355	378
27	309	301	304	337	321	329	355	323	331	353	295	318
28	314	302	308	342	336	338	342	321	332	295	269	280
29	326	312	319	343	339	342	318	270	299	269	263	266
30	334	325	330	346	341	344	288	261	273	284	268	276
31	---	---	---	348	342	345	295	275	285	---	---	---

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.6	7.3	7.6	7.5	7.1	7.1	7.6	7.6	7.6	7.5	7.4	7.4
2	7.3	7.1	7.5	7.5	7.3	7.2	7.7	7.6	7.6	7.5	7.4	7.3
3	7.3	7.3	7.6	7.5	7.3	7.3	7.7	7.6	7.5	7.5	7.3	7.3
4	7.4	7.3	7.6	7.5	7.4	7.3	7.7	7.6	7.5	7.5	7.3	7.3
5	7.4	7.4	7.6	7.6	7.4	7.4	7.6	7.6	7.5	7.3	7.3	7.3
6	7.4	7.4	7.6	7.5	7.4	7.4	7.6	7.6	7.4	7.3	7.3	7.3
7	7.4	7.3	7.5	7.5	7.4	7.4	7.6	7.5	7.4	7.3	7.4	7.3
8	7.4	7.3	7.5	7.5	7.4	7.4	7.6	7.6	7.4	7.3	7.4	7.4
9	7.4	7.3	7.6	7.5	7.4	7.4	7.6	7.6	7.3	7.3	7.4	7.4
10	7.4	7.3	7.6	7.5	7.4	7.4	7.6	7.5	7.4	7.3	7.4	7.4
11	7.4	7.3	7.6	7.5	7.4	7.4	7.6	7.6	7.4	7.4	7.4	7.3
12	7.4	7.3	7.5	7.5	7.4	7.4	7.6	7.6	7.5	7.4	7.3	7.3
13	7.3	7.3	7.5	7.5	7.5	7.4	7.6	7.6	7.5	7.5	7.3	7.3
14	--	--	7.6	7.5	7.5	7.5	7.6	7.6	7.5	7.5	7.4	7.3
15	--	--	7.6	7.5	7.5	7.5	7.6	7.6	7.5	7.5	7.4	7.2
16	7.3	7.1	7.6	7.5	7.5	7.5	7.6	7.6	7.5	7.5	7.3	7.2
17	7.3	7.2	7.5	7.5	7.5	7.4	7.6	7.6	7.5	7.2	7.2	7.2
18	7.3	7.2	7.6	7.5	7.5	7.4	7.6	7.6	7.2	7.0	7.2	7.2
19	7.4	7.3	7.6	7.6	7.5	7.5	7.6	7.5	7.1	7.0	7.4	7.2
20	7.4	7.3	7.6	7.5	7.6	7.5	7.6	7.6	7.2	6.9	7.4	7.2
21	7.3	7.3	7.5	7.5	7.6	7.5	7.6	7.6	7.1	7.0	7.3	7.2
22	7.4	7.2	7.5	7.5	7.6	7.5	7.6	7.6	7.1	7.1	7.3	7.3
23	7.5	7.4	7.5	7.4	7.6	7.6	7.6	7.5	7.2	7.1	7.3	7.3
24	7.6	7.5	7.4	7.4	7.6	7.6	7.6	7.5	7.2	7.2	7.3	7.3
25	7.6	7.5	7.4	7.4	7.6	7.6	7.6	7.5	7.3	7.2	7.3	7.3
26	7.5	7.5	7.5	7.4	7.6	7.6	7.6	7.5	7.3	7.3	7.3	7.3
27	7.6	7.5	7.5	7.4	7.6	7.6	7.6	7.6	7.3	7.3	7.3	7.3
28	7.6	7.5	7.3	6.8	7.6	7.6	7.6	7.4	7.4	7.3	7.4	7.3
29	7.6	7.5	7.0	6.8	7.6	7.6	7.6	7.4	--	--	7.4	7.4
30	7.6	7.6	7.1	7.0	7.6	7.6	7.6	7.5	--	--	7.4	7.4
31	7.6	7.6	--	--	7.6	7.6	7.6	7.5	--	--	7.4	7.4

03408500 NEW RIVER AT NEW RIVER, TN--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.4	7.4	7.5	7.4	7.2	7.1	7.5	7.3	7.4	7.2	7.5	7.3
2	7.4	7.4	7.5	7.4	7.2	6.9	7.4	7.3	7.4	7.3	7.4	7.0
3	7.4	7.4	7.6	7.4	7.2	7.1	7.4	7.2	7.4	7.3	7.1	6.8
4	7.4	7.4	7.6	7.5	7.1	7.0	7.6	7.4	7.4	7.3	7.2	7.0
5	7.5	7.4	7.7	7.5	7.1	7.0	7.6	7.4	7.4	7.3	7.2	7.1
6	7.4	7.4	7.6	7.5	7.2	7.1	7.6	7.5	7.5	7.2	7.2	7.1
7	7.4	7.3	7.6	7.4	7.1	7.0	7.6	7.5	--	--	7.3	7.2
8	7.4	7.3	7.5	7.4	7.1	7.1	7.6	7.5	--	--	7.4	7.2
9	7.5	7.4	7.4	7.3	7.2	7.0	7.6	7.5	--	--	7.4	7.2
10	7.5	7.5	7.4	7.3	7.0	6.9	7.6	7.4	--	--	7.4	7.2
11	7.5	7.5	7.4	7.3	7.0	7.0	7.4	7.3	--	--	7.4	7.3
12	7.5	7.4	7.3	7.2	7.2	7.0	7.4	7.3	--	--	7.4	7.2
13	7.5	7.4	7.3	7.2	7.2	7.1	7.5	7.4	--	--	7.4	7.2
14	7.5	7.4	7.3	7.2	7.3	7.2	7.4	7.3	--	--	7.5	7.2
15	7.5	7.4	7.3	7.2	7.3	7.1	7.4	7.2	--	--	7.4	7.2
16	7.6	7.5	7.3	7.2	7.4	7.2	7.4	7.2	--	--	7.4	7.3
17	--	--	7.3	7.2	7.5	7.2	--	--	--	--	7.3	7.2
18	--	--	7.3	7.2	7.6	7.2	--	--	--	--	7.4	7.2
19	--	--	7.3	7.2	7.6	7.3	--	--	--	--	7.4	7.2
20	--	--	7.3	7.2	7.5	7.3	--	--	--	--	7.3	7.2
21	--	--	7.3	7.3	7.5	7.3	7.5	7.2	--	--	7.3	7.2
22	--	--	7.5	7.3	7.5	7.3	7.6	7.4	7.4	7.3	7.4	7.2
23	--	--	7.5	6.9	7.5	7.3	7.5	7.4	7.4	7.3	7.4	7.3
24	--	--	7.1	6.9	7.4	7.3	7.5	7.4	7.5	7.3	7.4	7.2
25	--	--	6.9	6.8	7.4	7.2	7.5	7.4	7.5	7.3	7.6	7.4
26	--	--	6.9	6.9	7.5	7.3	7.5	7.3	7.5	7.3	7.5	7.4
27	--	--	7.0	6.9	7.5	7.4	7.4	7.3	7.4	7.3	7.4	7.3
28	--	--	7.1	7.0	7.5	7.3	7.4	7.3	7.4	7.2	7.3	7.2
29	7.4	7.4	7.1	7.0	7.4	7.3	7.4	7.3	7.5	7.3	7.2	7.2
30	7.5	7.4	7.1	7.1	7.4	7.3	7.4	7.2	7.5	7.4	7.3	7.1
31	--	--	7.1	7.1	--	--	7.3	7.2	7.5	7.3	--	--

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.5	15.0	16.0	16.5	16.0	16.0	14.0	13.0	13.5	1.0	.5	.5
2	15.0	14.0	14.0	16.5	16.0	16.0	13.0	9.5	11.5	1.0	.5	1.0
3	14.5	14.5	14.5	16.0	15.5	16.0	9.5	7.0	8.0	2.5	1.0	2.0
4	16.0	14.5	15.0	15.5	13.0	14.5	6.5	6.0	6.0	3.5	2.5	3.0
5	16.0	15.0	15.5	13.0	11.0	12.0	6.0	6.0	6.0	3.5	3.0	3.0
6	15.0	14.0	14.5	11.0	10.5	10.5	6.0	5.5	6.0	2.5	2.0	2.5
7	14.5	13.5	14.0	10.0	9.5	10.0	5.5	5.0	5.5	2.5	1.5	2.0
8	14.5	13.0	13.5	9.5	9.0	9.5	5.5	5.0	5.0	1.5	.5	1.0
9	15.0	13.0	14.0	9.5	9.0	9.5	6.5	5.5	6.0	1.0	.0	.5
10	16.0	14.5	15.0	11.0	9.5	10.0	6.5	6.0	6.5	1.0	.5	.5
11	17.0	15.5	16.0	12.0	10.5	11.5	8.0	6.5	7.5	1.0	.5	.5
12	18.0	16.5	17.0	13.0	12.0	12.5	9.0	8.0	8.5	1.5	.5	.5
13	18.5	17.0	18.0	13.5	12.5	13.0	9.0	8.5	9.0	1.0	.5	.5
14	---	---	---	14.0	13.0	13.5	8.0	5.5	7.0	1.0	.5	.5
15	---	---	---	14.5	13.5	14.0	5.5	3.5	4.0	1.5	.5	.5
16	19.5	19.0	19.0	15.0	14.0	14.5	3.5	3.0	3.0	1.5	.5	1.0
17	19.5	17.5	18.5	14.5	14.0	14.5	3.5	3.0	3.0	1.5	1.0	1.5
18	19.5	18.0	18.5	15.5	14.5	15.0	3.5	2.5	3.0	3.0	1.5	2.0
19	20.0	18.0	19.0	16.0	15.0	15.5	2.5	1.5	2.0	4.0	3.0	3.5
20	20.0	18.5	19.0	15.5	14.5	15.5	1.5	1.5	1.5	4.5	4.0	4.0
21	20.0	19.0	19.5	14.5	13.0	14.0	1.5	.5	1.0	4.5	3.5	4.0
22	20.0	19.5	19.5	13.0	12.5	13.0	1.0	.5	.5	5.0	4.5	5.0
23	20.0	19.5	19.5	12.5	11.0	11.5	1.5	1.0	1.0	5.0	4.0	4.5
24	19.5	19.0	19.5	11.5	11.0	11.5	2.0	1.5	1.5	4.0	3.5	4.0
25	19.0	18.5	19.0	12.0	11.0	11.5	1.5	.5	1.0	4.0	3.5	3.5
26	18.5	17.5	18.0	13.5	12.0	13.0	.5	.0	.5	4.0	3.0	3.5
27	17.5	17.0	17.5	15.0	13.5	14.5	1.0	.5	.5	---	---	---
28	17.5	17.0	17.5	15.5	15.0	15.0	1.0	.5	.5	---	---	---
29	17.0	16.5	17.0	15.0	14.0	14.5	1.0	.5	.5	---	---	---
30	16.5	16.0	16.5	14.0	14.0	14.0	1.0	.0	.5	1.0	.5	.5
31	16.0	16.0	16.0	---	---	---	1.0	.5	.5	1.5	.5	1.0

03408500 NEW RIVER AT NEW RIVER, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	1.0	1.5	5.5	4.0	4.5	15.5	14.5	15.0	19.5	18.5	19.0
2	4.0	2.5	3.5	4.0	3.5	4.0	16.5	15.0	16.0	19.5	18.0	18.5
3	6.0	4.0	5.0	4.5	4.0	4.0	17.0	16.0	16.5	18.5	17.0	18.0
4	8.5	6.0	7.0	5.0	4.5	4.5	17.0	16.0	16.5	18.0	16.0	17.0
5	10.5	8.5	9.5	6.0	4.5	5.0	17.5	16.5	17.0	19.0	16.0	17.5
6	10.5	9.5	10.0	6.5	6.0	6.0	18.0	17.0	17.5	20.0	17.5	18.5
7	9.5	8.5	9.0	6.0	5.0	5.5	19.0	17.5	18.5	21.5	18.5	20.0
8	8.5	7.5	8.0	5.0	4.0	4.5	19.0	18.0	18.5	23.0	20.5	21.5
9	7.5	7.0	7.0	6.5	5.0	6.0	18.0	14.5	16.0	23.5	21.0	22.0
10	7.0	5.5	6.5	9.5	7.0	6.0	14.5	13.0	13.5	23.5	21.0	22.5
11	5.5	4.0	4.5	11.0	9.5	10.0	13.5	12.0	13.0	22.5	21.5	22.5
12	3.5	2.5	3.0	12.5	11.0	11.5	14.0	12.0	13.0	22.5	21.5	22.0
13	2.0	1.5	2.0	13.5	12.5	13.0	14.5	13.0	14.0	22.5	21.0	22.0
14	1.5	.5	1.0	13.5	13.0	13.5	16.0	14.5	15.0	23.0	21.0	22.0
15	1.5	.5	1.0	13.0	11.0	12.0	16.5	15.5	16.0	23.0	21.5	22.0
16	3.5	1.5	2.0	11.0	10.0	10.5	15.5	14.5	15.0	24.0	22.0	23.0
17	7.0	3.5	5.0	10.5	9.5	10.0	---	---	---	25.0	22.5	23.5
18	9.0	7.0	8.0	11.0	10.0	10.5	---	---	---	23.5	23.0	23.5
19	9.5	9.0	9.5	12.5	11.0	12.0	---	---	---	23.0	22.0	22.5
20	10.5	9.0	9.5	12.0	9.5	11.0	---	---	---	22.0	20.5	21.0
21	10.0	9.5	10.0	9.5	7.0	8.0	---	---	---	20.5	19.5	19.5
22	9.5	8.0	9.0	7.0	6.0	6.5	---	---	---	20.5	18.5	19.5
23	8.0	7.5	8.0	7.5	5.5	6.5	---	---	---	19.5	14.5	17.0
24	7.5	6.5	7.0	9.0	7.0	8.0	---	---	---	15.5	14.0	14.5
25	6.5	6.0	6.5	10.5	8.5	9.5	---	---	---	15.5	15.0	15.5
26	7.0	6.0	6.5	12.0	10.5	11.5	---	---	---	16.0	15.5	16.0
27	7.0	6.0	6.5	13.5	11.5	12.5	---	---	---	17.0	16.0	16.5
28	6.0	5.5	5.5	13.5	12.0	13.0	---	---	---	17.5	17.0	17.0
29	---	---	---	13.5	12.0	13.0	19.0	18.5	19.0	18.5	17.5	18.0
30	---	---	---	14.5	13.0	13.5	19.5	18.0	18.5	19.5	18.5	19.0
31	---	---	---	15.0	13.5	14.5	---	---	---	20.5	19.5	20.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.0	20.5	21.0	27.5	26.0	27.0	27.0	25.0	26.0	20.5	20.0	20.0
2	21.5	19.5	20.5	26.5	26.0	26.0	27.0	25.5	26.0	20.0	19.0	19.5
3	20.0	19.0	19.5	25.5	24.0	25.0	26.5	25.0	26.0	19.0	19.0	19.0
4	20.0	19.5	20.0	25.5	24.0	25.0	26.5	24.5	25.5	20.0	19.0	19.5
5	20.5	19.0	20.0	26.5	24.0	25.0	26.0	24.5	25.0	21.0	20.0	20.5
6	21.5	20.0	21.0	27.5	25.0	26.0	26.0	24.5	25.0	21.5	20.5	21.0
7	22.0	21.0	21.5	28.0	25.5	26.5	---	---	---	21.5	20.5	21.0
8	23.5	22.0	22.5	29.0	26.0	27.0	---	---	---	21.5	20.0	21.0
9	23.5	22.0	23.0	29.0	26.5	27.5	---	---	---	21.5	19.5	20.5
10	21.5	20.5	21.0	27.5	26.0	26.5	---	---	---	21.5	20.0	21.0
11	21.5	21.0	21.0	27.0	25.5	26.5	---	---	---	22.0	20.5	21.0
12	22.5	22.0	22.5	27.5	26.0	26.5	---	---	---	22.0	21.0	21.5
13	23.0	22.0	22.5	27.5	26.0	26.5	---	---	---	22.0	21.0	21.5
14	23.5	22.0	22.5	27.0	25.5	26.0	---	---	---	22.5	20.5	21.5
15	24.5	23.0	23.5	26.5	25.5	26.0	---	---	---	22.0	20.5	21.0
16	25.5	23.5	24.5	26.5	25.5	26.0	---	---	---	22.5	21.0	21.5
17	25.5	23.5	24.5	---	---	---	---	---	---	22.5	21.0	21.5
18	25.5	23.0	24.0	---	---	---	---	---	---	22.0	21.0	21.5
19	25.0	22.5	24.0	---	---	---	---	---	---	21.5	21.0	21.5
20	26.0	23.5	24.5	---	---	---	---	---	---	22.0	21.0	21.5
21	26.5	24.0	25.5	30.0	29.0	29.5	---	---	---	22.5	21.0	22.0
22	27.0	24.5	25.5	30.0	27.5	28.5	26.5	26.0	26.5	23.5	21.5	22.5
23	27.5	25.0	26.0	29.5	28.0	28.5	27.0	25.0	26.0	23.5	22.0	23.0
24	27.5	25.5	26.5	30.0	28.0	29.0	27.0	25.5	26.0	24.0	23.0	23.5
25	27.5	25.5	26.5	29.0	28.0	29.0	26.5	25.0	25.5	24.0	23.0	23.5
26	27.0	25.0	26.0	29.5	28.0	28.5	26.0	24.5	25.0	24.5	23.0	23.5
27	27.5	25.0	26.0	29.5	27.0	28.5	25.5	24.0	24.5	24.5	23.0	23.5
28	27.5	25.0	26.5	29.0	28.0	28.5	24.5	22.5	23.5	24.5	23.0	23.5
29	27.5	25.5	26.5	29.0	27.5	28.5	22.5	21.0	22.0	25.0	23.0	24.0
30	27.5	26.0	27.0	28.5	27.0	28.0	22.0	20.5	21.5	25.0	23.5	24.0
31	---	---	---	28.0	25.5	26.5	21.5	20.0	20.5	---	---	---

03408500 NEW RIVER AT NEW RIVER, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.2	8.3	8.9	8.8	8.6	8.7	9.2	8.9	9.2	13.2	13.1	13.1
2	9.1	8.7	8.8	8.7	8.5	8.6	10.2	9.2	9.7	13.3	13.0	13.2
3	9.4	9.0	9.2	8.9	8.4	8.6	11.2	10.2	10.8	13.1	12.6	12.9
4	9.1	8.4	8.8	9.3	8.6	9.0	11.7	11.2	11.5	12.7	12.4	12.6
5	9.1	8.8	8.9	10.2	9.3	9.8	11.7	11.4	11.6	12.5	12.3	12.4
6	8.9	7.7	8.1	10.7	10.2	10.6	11.6	11.4	11.5	12.7	12.4	12.6
7	8.0	7.6	7.8	10.9	10.6	10.8	11.8	11.5	11.7	12.9	12.5	12.7
8	8.5	8.1	8.3	11.3	10.9	11.1	11.8	11.7	11.7	12.9	12.5	12.7
9	9.2	8.5	8.8	11.5	11.1	11.3	11.8	11.5	11.7	13.3	12.7	13.0
10	9.6	9.1	9.4	11.3	11.1	11.2	11.7	11.4	11.5	13.2	12.8	13.0
11	9.6	9.1	9.4	11.1	10.7	11.0	11.6	11.2	11.4	13.0	12.7	12.9
12	9.5	8.8	9.3	10.8	10.3	10.6	11.3	10.6	10.9	13.0	12.7	12.8
13	9.3	8.8	9.0	10.5	9.8	10.2	10.7	10.5	10.6	12.9	12.6	12.7
14	---	---	---	10.2	9.6	9.9	11.6	10.7	11.1	12.9	12.5	12.7
15	---	---	---	10.3	9.5	9.8	12.6	11.6	12.1	12.9	12.7	12.8
16	8.3	8.1	8.2	9.7	9.2	9.5	12.8	12.5	12.7	12.9	12.7	12.8
17	8.3	7.1	7.9	9.4	9.0	9.2	12.9	12.6	12.7	12.9	12.6	12.8
18	8.3	8.0	8.1	9.4	9.1	9.2	12.7	12.3	12.5	12.7	12.4	12.6
19	8.3	7.8	8.1	9.3	9.0	9.1	13.0	12.6	12.8	12.4	11.6	12.0
20	8.3	7.9	8.1	9.3	9.0	9.1	13.1	12.9	13.0	11.7	11.5	11.6
21	8.1	7.8	7.9	9.5	9.2	9.4	13.3	13.0	13.1	12.5	11.5	11.9
22	7.9	7.8	7.8	9.7	9.5	9.6	13.4	13.1	13.3	12.4	12.0	12.1
23	8.1	7.8	7.9	10.1	9.6	9.9	13.2	12.9	13.1	12.1	11.9	12.0
24	8.1	7.9	8.0	10.4	9.9	10.2	12.9	12.6	12.8	12.3	12.0	12.2
25	8.3	8.1	8.2	10.5	10.2	10.3	13.0	12.6	12.8	12.3	12.1	12.2
26	8.4	7.7	8.0	10.3	9.7	9.9	13.2	12.9	13.1	12.2	12.0	12.1
27	8.4	8.2	8.3	9.7	8.9	9.3	13.3	13.1	13.2	12.6	12.1	12.3
28	8.4	8.2	8.6	9.0	8.0	8.6	13.2	13.0	13.2	---	---	---
29	8.7	8.4	8.5	9.1	8.0	8.5	13.3	13.1	13.2	---	---	---
30	8.7	8.3	8.5	9.2	8.8	9.0	13.4	12.7	13.2	13.2	12.9	13.1
31	8.9	8.4	8.6	---	---	---	13.3	13.1	13.2	13.3	13.0	13.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	13.2	13.0	13.1	12.5	12.0	12.2	9.9	9.4	9.6	9.5	8.7	9.1
2	13.0	12.5	12.8	12.8	12.3	12.6	9.6	9.1	9.4	9.6	8.5	9.1
3	12.5	11.8	12.2	12.6	12.3	12.5	9.5	9.0	9.3	10.2	8.9	9.3
4	12.0	11.1	11.5	12.6	12.1	12.3	9.4	9.0	9.3	9.8	9.0	9.5
5	11.1	9.8	10.5	12.3	12.1	12.2	9.5	8.9	9.2	10.0	9.3	9.6
6	10.4	9.9	10.1	12.1	11.6	11.8	9.4	8.6	9.1	9.8	9.2	9.4
7	10.6	10.2	10.5	12.1	11.7	11.9	9.2	8.5	8.9	9.4	8.8	9.1
8	11.1	10.6	10.8	12.5	12.0	12.3	9.0	8.4	8.7	9.0	8.2	8.6
9	11.4	11.0	11.2	12.5	12.0	12.2	9.3	8.5	8.9	8.4	7.9	8.2
10	11.4	11.1	11.2	12.1	11.2	11.5	9.9	9.2	9.5	8.5	7.8	8.1
11	12.0	11.3	11.6	11.1	10.5	10.8	10.2	9.1	9.9	8.3	7.6	7.9
12	12.6	11.9	12.3	10.5	10.0	10.3	10.3	9.9	10.0	8.1	7.6	7.8
13	12.9	12.5	12.7	10.1	9.6	9.8	10.2	9.6	9.9	7.9	7.5	7.7
14	12.9	12.6	12.8	9.9	9.6	9.7	9.9	9.4	9.7	8.0	7.5	7.7
15	13.1	12.8	12.9	10.2	9.6	10.0	9.9	9.2	9.5	8.1	7.5	7.8
16	13.0	12.5	12.8	10.8	10.1	10.5	9.8	9.5	9.6	8.1	7.4	7.8
17	12.4	10.7	11.7	10.9	10.5	10.7	---	---	---	8.1	7.5	7.8
18	10.9	10.3	10.6	10.8	10.5	10.7	---	---	---	7.8	7.4	7.6
19	10.4	10.2	10.2	10.6	9.5	10.1	---	---	---	7.7	7.4	7.5
20	10.8	10.2	10.4	10.7	9.8	10.2	---	---	---	7.6	7.1	7.3
21	10.7	10.4	10.5	11.7	10.8	11.3	---	---	---	8.0	7.1	7.6
22	11.0	10.5	10.8	12.1	11.6	11.9	---	---	---	8.8	7.8	8.3
23	11.4	10.9	11.2	12.1	11.8	12.0	---	---	---	9.1	8.1	8.5
24	11.5	11.2	11.4	12.0	11.4	11.6	---	---	---	9.3	8.4	9.1
25	11.9	11.4	11.6	11.5	10.9	11.2	---	---	---	9.2	8.3	9.0
26	11.9	11.6	11.7	10.9	10.3	10.6	---	---	---	9.1	8.5	9.0
27	11.7	11.3	11.5	10.4	10.0	10.2	---	---	---	9.1	8.7	8.9
28	12.1	11.5	11.8	10.2	9.9	10.0	---	---	---	8.9	8.7	8.8
29	---	---	---	10.2	10.0	10.1	9.4	8.8	9.1	8.9	8.6	8.7
30	---	---	---	10.2	9.8	10.0	9.5	9.0	9.3	8.9	8.4	8.6
31	---	---	---	9.9	9.7	9.8	---	---	---	8.5	8.3	8.4

03408500 NEW RIVER AT NEW RIVER, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.4	8.1	8.2	7.3	6.5	6.8	6.4	5.7	6.0	8.0	7.7	7.9
2	8.5	7.8	8.1	6.9	6.3	6.7	6.7	6.2	6.4	8.4	7.8	8.0
3	8.6	8.2	8.3	6.8	6.1	6.5	6.7	6.1	6.4	8.5	8.0	8.3
4	8.4	8.1	8.3	7.6	6.8	7.2	6.6	6.2	6.4	8.5	8.4	8.5
5	8.6	8.2	8.4	8.0	6.9	7.4	6.8	6.3	6.6	8.4	8.1	8.2
6	8.4	7.9	8.2	8.0	7.2	7.6	6.9	6.5	6.7	8.2	8.0	8.1
7	8.1	7.7	7.9	7.9	7.2	7.6	---	---	---	8.2	8.0	8.1
8	8.0	7.6	7.8	7.6	7.3	7.5	---	---	---	8.3	7.9	8.1
9	7.9	7.4	7.6	7.4	7.1	7.3	---	---	---	8.6	7.9	8.2
10	8.2	7.7	8.0	7.1	6.7	6.9	---	---	---	8.7	7.9	8.3
11	8.1	7.7	7.9	6.7	6.0	6.5	---	---	---	8.5	7.9	8.3
12	7.8	7.6	7.7	6.8	6.0	6.4	---	---	---	8.3	7.6	7.9
13	7.8	7.6	7.6	7.0	5.2	6.6	---	---	---	8.0	7.6	7.8
14	7.9	7.6	7.7	6.6	6.2	6.4	---	---	---	8.7	7.6	8.1
15	8.0	7.5	7.7	6.8	6.2	6.5	---	---	---	8.6	7.6	8.2
16	8.2	7.3	7.8	7.1	6.3	6.6	---	---	---	8.5	7.9	8.2
17	8.4	7.3	7.8	---	---	---	---	---	---	8.4	7.7	8.0
18	8.5	7.2	7.9	---	---	---	---	---	---	8.5	7.6	8.0
19	8.5	7.4	7.9	---	---	---	---	---	---	8.2	7.7	7.9
20	8.3	7.5	7.9	---	---	---	---	---	---	7.9	7.6	7.8
21	8.0	7.5	7.8	7.3	7.1	7.2	---	---	---	8.2	7.6	7.9
22	7.9	7.4	7.6	7.2	6.5	6.9	7.2	7.0	7.1	8.3	7.6	7.9
23	7.8	7.2	7.5	7.1	6.6	6.8	7.3	6.7	7.0	7.9	7.5	7.7
24	7.6	7.2	7.4	7.1	6.5	6.7	7.1	6.6	6.9	7.7	7.3	7.5
25	7.4	7.1	7.2	7.2	6.4	6.7	7.1	6.5	6.8	7.8	7.3	7.6
26	7.3	7.0	7.2	7.0	6.1	6.5	7.1	6.7	6.9	7.7	7.1	7.4
27	7.4	7.1	7.2	6.8	5.9	6.3	6.9	6.5	6.7	7.1	6.7	6.9
28	7.3	6.9	7.1	6.6	6.0	6.2	6.7	5.9	6.3	7.0	6.6	6.8
29	7.0	6.5	6.8	6.3	5.8	6.0	7.5	6.7	7.3	7.0	6.5	6.8
30	7.1	6.4	6.8	6.1	5.7	5.9	8.1	7.5	7.8	7.1	6.5	6.8
31	---	---	---	6.1	5.7	5.9	8.1	7.5	7.8	---	---	---

TURBIDITY (JTU), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	190	25	15	10	65	35	45	15	15	7	30	20
2	220	55	15	10	45	35	30	25	15	6	25	15
3	45	35	15	10	50	30	40	20	10	2	15	10
4	40	35	20	10	55	30	35	20	8	1	30	9
5	40	30	35	15	50	40	30	15	240	7	10	6
6	45	30	35	20	50	35	35	15	320	75	10	4
7	40	30	25	15	55	35	35	2	85	55	25	4
8	35	30	15	10	65	35	9	1	75	20	20	4
9	45	30	15	10	60	40	15	1	55	10	10	5
10	35	30	15	10	55	7	15	1	15	8	8	6
11	35	30	15	10	45	7	7	1	10	6	10	6
12	40	30	15	15	55	8	10	1	9	5	15	7
13	40	30	15	3	35	10	10	2	7	5	15	7
14	---	---	5	2	30	20	10	2	7	4	65	10
15	---	---	6	2	35	15	10	1	7	4	70	35
16	65	45	7	4	50	10	9	1	10	3	45	25
17	55	30	15	5	20	10	10	2	750	15	30	15
18	35	20	10	8	70	9	35	1	700	150	15	15
19	30	15	25	10	30	10	40	2	130	55	850	15
20	20	10	25	10	40	15	30	10	55	30	450	35
21	25	10	15	10	55	15	50	8	45	25	35	20
22	30	15	30	10	35	10	40	10	30	20	20	10
23	25	15	50	30	45	15	15	7	20	15	15	8
24	20	15	40	30	30	15	20	4	20	10	10	8
25	25	15	30	7	30	15	10	6	25	10	10	7
26	30	20	40	5	20	15	20	6	25	10	30	7
27	30	15	85	8	25	15	20	5	35	15	20	7
28	20	15	650	35	20	15	30	10	25	20	10	8
29	20	15	600	120	30	15	30	10	---	---	10	8
30	20	10	130	50	25	15	20	5	---	---	10	9
31	15	10	---	---	30	15	35	7	---	---	15	10

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03408500 NEW RIVER AT NEW RIVER, TN--Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15	8	8	3	15	10	5	2	7	3	90	75
2	10	7	7	2	700	10	20	3	8	2	800	85
3	10	7	6	2	320	55	15	7	8	3	900	110
4	10	8	6	2	90	40	15	10	7	3	120	60
5	15	8	6	2	75	30	10	9	7	3	55	35
6	10	8	5	1	80	25	10	9	8	3	40	30
7	10	8	5	1	100	25	15	10	---	---	40	30
8	20	8	6	2	40	25	20	10	---	---	45	35
9	40	20	7	2	360	20	15	15	---	---	50	40
10	55	35	6	2	460	100	30	15	---	---	45	45
11	35	20	6	2	210	70	30	20	---	---	50	45
12	20	15	---	---	90	35	30	25	---	---	100	50
13	15	15	---	---	50	35	50	25	---	---	95	75
14	15	15	---	---	50	25	80	30	---	---	85	75
15	20	15	---	---	25	15	65	50	---	---	85	80
16	20	15	---	---	20	10	65	55	---	---	95	80
17	---	---	---	---	15	9	---	---	---	---	100	9
18	---	---	---	---	15	7	---	---	---	---	15	7
19	---	---	---	---	15	6	---	---	---	---	25	7
20	---	---	---	---	10	5	---	---	---	---	15	9
21	---	---	---	---	10	5	6	3	---	---	20	15
22	---	---	---	---	10	5	7	3	40	15	30	20
23	---	---	---	---	10	6	5	2	30	15	35	25
24	---	---	---	---	10	4	5	3	30	15	55	40
25	---	---	---	---	8	---	6	3	30	15	55	45
26	---	---	---	---	5	1	8	3	45	20	80	55
27	---	---	40	30	3	1	9	2	60	25	100	80
28	---	---	45	25	4	2	6	2	55	40	100	95
29	8	4	25	20	6	2	5	3	70	55	95	90
30	8	3	20	15	4	2	7	3	85	60	95	90
31	---	---	15	15	---	---	8	2	90	55	---	---

CUMBERLAND RIVER BASIN

03408500 NEW RIVER AT NEW RIVER, TN--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	1190	12	38	83	26	5.9	1340	69	253
2	1100	11	34	87	24	5.7	1160	47	147
3	520	28	39	141	23	8.8	872	33	77
4	564	34	53	258	26	19	730	25	50
5	318	25	21	804	46	103	636	24	42
6	220	23	14	553	31	47	596	23	37
7	168	24	11	387	24	25	472	20	25
8	135	22	8.0	313	20	17	410	16	18
9	113	20	6.0	244	18	12	373	13	13
10	100	15	4.1	204	19	10	331	11	9.9
11	90	11	2.7	182	21	10	303	8	6.4
12	82	11	2.4	167	19	8.4	353	7	7.0
13	75	10	2.1	152	17	6.8	594	14	25
14	73	10	2.0	140	16	5.9	876	51	122
15	79	10	2.1	133	15	5.4	799	43	92
16	77	9	2.0	136	15	5.7	712	30	57
17	73	9	1.8	361	25	26	603	17	28
18	68	7	1.3	398	19	21	506	9	13
19	60	7	1.1	322	18	15	387	7	6.9
20	56	7	1.1	277	16	12	356	7	6.6
21	55	7	.99	242	15	9.8	333	7	6.0
22	214	32	24	580	28	54	300	6	5.0
23	181	32	16	996	34	91	314	5	3.9
24	146	31	12	746	30	60	300	5	4.4
25	188	42	21	552	26	38	280	6	4.2
26	151	34	14	437	16	19	260	11	7.7
27	125	30	10	529	22	33	240	8	5.0
28	109	29	8.6	6210	563	13900	220	3	1.8
29	99	28	7.4	8000	401	11400	200	4	2.2
30	90	27	6.5	2200	132	718	190	3	1.8
31	82	29	6.4	---	---	---	180	3	1.3
TOTAL	6601	---	373.59	25834	---	26692.4	15228	---	1079.1
		JANUARY			FEBRUARY			MARCH	
1	353	13	13	265	4	2.9	657	70	123
2	357	7	6.4	277	4	3.2	621	68	115
3	359	6	6.2	321	7	6.5	600	6	9.9
4	349	6	5.8	345	15	14	534	5	6.6
5	324	5	4.3	997	194	758	476	5	6.2
6	285	5	3.5	1980	153	876	442	5	6.1
7	266	11	7.7	1870	78	400	399	4	4.8
8	250	10	6.9	1390	49	185	344	4	3.7
9	240	5	3.5	1050	33	93	306	4	3.7
10	220	6	3.5	847	18	41	294	6	4.5
11	210	7	3.8	748	11	22	328	7	6.0
12	200	8	4.1	569	7	11	338	11	10
13	190	10	5.0	458	2	2.6	400	8	9.0
14	180	14	6.9	439	1	1.3	740	12	24
15	170	8	3.9	465	1	1.5	1090	32	97
16	160	5	2.3	514	3	4.0	1130	22	67
17	150	6	2.4	4370	155	3820	923	10	26
18	150	6	2.6	12200	264	9540	765	6	13
19	300	19	21	3410	59	551	1910	137	1170
20	543	17	26	1770	40	195	1710	145	673
21	424	11	12	1220	17	58	1060	103	295
22	387	10	10	943	8	20	802	76	164
23	352	9	8.1	782	6	13	659	53	94
24	313	8	6.3	683	3	5.6	555	34	51
25	306	6	5.3	662	9	15	464	12	16
26	358	7	6.6	552	8	11	403	5	5.5
27	344	7	6.2	637	8	14	376	4	3.8
28	330	6	5.0	728	10	20	340	4	3.5
29	310	6	4.8	---	---	---	303	4	3.5
30	280	5	4.0	---	---	---	279	4	3.2
31	269	4	3.0	---	---	---	262	6	3.9
TOTAL	8929	---	210.1	40492	---	16684.6	19510	---	3021.9

03408500 NEW RIVER AT NEW RIVER, TN--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			MAY			JUNE	
1	243	7	4.5	176	9	4.4	395	15	16
2	229	6	3.7	162	8	3.4	1270	344	1490
3	218	4	2.4	147	7	2.9	707	143	284
4	206	3	1.5	132	7	2.6	693	105	198
5	190	3	1.7	125	7	2.4	532	50	73
6	182	5	2.4	120	6	1.9	517	47	69
7	204	5	2.6	114	8	2.6	333	31	28
8	281	8	6.9	120	11	3.6	307	27	22
9	636	16	27	118	11	3.5	564	64	209
10	468	12	15	99	9	2.3	1130	174	589
11	396	7	7.5	89	8	1.9	930	71	180
12	348	4	4.0	86	8	1.8	640	57	99
13	307	4	3.2	103	10	2.8	398	41	43
14	278	4	3.1	100	7	2.0	278	39	29
15	261	3	1.9	90	8	1.8	214	27	15
16	241	3	1.7	78	8	1.6	173	19	8.9
17	217	2	1.4	68	7	1.2	141	15	5.8
18	204	2	.94	59	5	.88	117	12	3.9
19	187	2	1.0	57	9	1.9	100	10	2.7
20	176	4	1.7	90	15	3.8	87	11	2.5
21	270	12	9.1	97	16	4.3	79	10	2.2
22	321	10	8.4	74	14	2.8	70	8	1.5
23	278	4	3.0	1890	428	7330	61	8	1.3
24	242	1	.91	4840	466	8890	55	8	1.2
25	225	4	2.5	3880	201	2280	49	12	1.6
26	215	5	3.0	1670	58	282	42	9	1.0
27	204	4	2.5	1450	34	136	38	8	.80
28	199	5	2.6	1260	27	91	50	9	1.2
29	242	12	8.3	1010	24	65	97	16	4.2
30	212	11	6.5	744	16	31	78	13	2.7
31	---	---	---	535	15	22	---	---	---
TOTAL	7880	---	140.95	19593	---	19183.38	10145	---	3385.50
		JULY			AUGUST			SEPTEMBER	
1	80	16	3.5	19	9	.45	175	26	12
2	105	13	3.9	16	6	.25	1450	305	1200
3	229	15	9.3	14	4	.16	2150	444	3480
4	136	11	3.9	14	6	.22	580	68	108
5	81	10	2.1	12	7	.22	371	38	38
6	59	10	1.6	11	7	.20	255	28	19
7	47	10	1.3	9.2	6	.15	175	24	12
8	39	10	1.0	9.6	5	.14	126	23	7.8
9	32	8	.73	9.6	4	.11	99	23	6.1
10	34	11	1.0	11	3	.09	82	20	4.4
11	91	11	2.7	642	179	310	70	26	4.9
12	111	12	3.7	465	119	149	179	94	56
13	109	19	5.9	170	64	29	213	43	26
14	174	28	14	99	45	12	125	24	8.0
15	213	38	23	69	30	5.6	90	21	5.2
16	165	30	13	50	22	3.0	116	25	8.0
17	166	17	7.8	48	18	2.4	131	19	6.9
18	153	18	7.4	48	15	1.9	105	14	4.0
19	90	14	3.4	49	12	1.6	87	12	2.9
20	64	11	1.9	47	15	1.9	107	12	3.6
21	49	8	1.1	142	42	16	117	14	4.4
22	47	7	.94	70	34	6.3	106	14	4.1
23	38	6	.64	50	27	3.7	92	11	2.7
24	30	5	.38	38	18	1.9	331	16	14
25	24	9	.56	29	14	1.1	170	16	7.2
26	24	12	.75	28	11	.83	119	17	5.5
27	22	10	.59	41	7	.83	90	20	4.7
28	19	8	.39	135	40	14	73	20	3.9
29	22	5	.33	210	44	25	69	16	3.1
30	32	6	.50	116	21	6.5	76	16	3.4
31	24	7	.44	90	9	2.3	---	---	---
TOTAL	2509	---	117.75	2761.4	---	596.85	7929	---	5065.8
YEAR:	167411.4		76551.92						

CUMBERLAND RIVER BASIN

03409500 CLEAR FORK NEAR ROBBINS, TN

LOCATION.--Lat 36°23'18", long 84°37'49", Scott County, Hydrologic Unit 05130104, on right bank 300 ft downstream from Burnt Mill Bridge, 3.3 mi northwest of Robbins, and at mile 3.7.

DRAINAGE AREA.--272 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to September 1971, July 1975 to current year. Published as Clear Fork River near Robbins, October 1951 to September 1954.

REVISED RECORDS.--WSP 1306: 1931(M), 1936-37(M), 1943-44(M) WSP 1436: Drainage area. WSP 1910: 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 1,081.46 ft, Sandy Hook datum. Prior to Aug. 10, 1940, nonrecording gage at site 300 ft upstream at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 19-22, Dec. 25-30, Jan. 2, 6-10, 14, 16, 27-31. Records good except for periods of estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--52 years, (water years 1931-71, 1976-86), 472 ft³/s, 23.57 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,000 ft³/s, gage height, 18.5 ft from floodmarks, site and datum then in use, from rating curve extended above 14,000 ft³/s, on basis of slope-area measurement of peak flow; minimum observed, 0.2 ft³/s, Sept. 19-21, 1932; minimum gage height observed, 0.28 ft Oct. 1-3, 1936, site and datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 23, 1929, reached a stage of 22.1 ft, former site and datum, from information by local residents, and flood of May 27, 1973, reached a stage of 18.92 ft, present site and datum, from floodmark; discharge 35,700 ft³/s, from rating curve extended above 14,000 ft³/s, on basis of slope-area measurement at gage height 18.5 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	2230	9,080	10.43	May 23	2200	7,990	9.86
Feb. 18	0430	*11,300	*11.50	May 24	2200	7,280	9.46

Minimum discharge, 2.9 ft³/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4430	77	1060	182	175	417	154	133	521	29	5.2	42
2	3470	79	951	190	185	374	146	125	378	68	4.5	330
3	1030	85	693	172	210	360	139	114	340	128	3.9	984
4	770	123	551	164	248	334	132	102	269	101	3.6	301
5	509	319	467	157	649	305	124	93	390	61	3.4	200
6	354	281	440	155	1220	294	118	88	353	43	3.2	149
7	268	226	358	150	1530	280	117	84	286	31	3.3	103
8	210	201	316	140	1090	244	157	88	264	24	3.3	69
9	172	172	288	135	792	220	293	91	624	20	3.2	50
10	147	154	257	130	623	211	221	85	1630	20	3.4	41
11	132	141	234	125	559	217	185	72	1040	20	5.1	33
12	120	131	261	121	432	225	169	66	663	17	49	48
13	108	124	358	120	350	303	156	65	442	23	71	119
14	100	118	448	115	358	599	143	72	302	25	35	108
15	108	111	387	110	387	594	138	74	218	21	22	71
16	153	116	360	108	380	726	132	62	166	34	28	79
17	124	162	330	105	3780	600	123	52	128	35	48	89
18	106	194	295	105	8650	505	117	47	101	27	23	76
19	95	191	260	146	3050	524	110	50	82	20	15	62
20	89	174	240	240	1640	528	106	58	68	17	13	67
21	87	162	230	205	1120	414	157	68	56	14	12	109
22	86	218	220	186	834	354	225	58	47	12	10	87
23	85	317	219	176	660	322	198	2040	41	11	9.2	69
24	91	308	207	162	563	296	167	4750	35	9.6	9.5	59
25	106	269	200	159	532	264	153	4080	30	7.9	7.0	50
26	102	236	190	181	456	239	145	3510	25	7.1	5.8	42
27	91	346	180	210	474	224	136	2990	22	7.5	7.3	36
28	86	3870	170	200	504	211	134	3280	21	7.4	14	30
29	81	5260	160	190	---	191	160	2190	25	6.0	60	27
30	78	1820	150	180	---	176	156	1260	22	6.3	40	24
31	76	---	152	178	---	165	---	775	---	6.0	26	---
TOTAL	13464	15985	10632	4897	31451	10716	4611	26622	8589	858.8	546.9	3554
MEAN	434	533	343	158	1123	346	154	859	286	27.7	17.6	118
MAX	4430	5260	1060	240	8650	726	293	4750	1630	128	71	984
MIN	76	77	150	105	175	165	106	47	21	6.0	3.2	24

CAL YR 1985 TOTAL 133844 MEAN 367 MAX 5260 MIN 11
WTR YR 1986 TOTAL 131926.7 MEAN 361 MAX 8650 MIN 3.2

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 1977-82, October 1983 to September 1986 (discontinued).
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1983 to September 1986.
pH: October 1983 to September 1986.
WATER TEMPERATURE: October 1983 to September 1986.
DISSOLVED OXYGEN: October 1983 to September 1985.
TURBIDITY: October 1983 to September 1986.
SUSPENDED SEDIMENT DISCHARGE: October 1983 to September 1986.
INSTRUMENTATION.--Five parameter water-quality monitor and sediment pumping sampler since Oct. 1, 1983.
REMARKS.--Interruptions in the record were due to malfunction of the instruments.
EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 254 microsiemens, July 29, 1984; minimum, 27 microsiemens, May 26, 1986.
pH: Maximum, 8.1 units, Sept. 11, 1984, July 20, 1985; minimum, 5.2 units, April 6, 1977.
WATER TEMPERATURE: Maximum observed, 34.0CC, July 16, 1980; minimum, 0.5CC, many days.
DISSOLVED OXYGEN: Maximum, 14.2 mg/L, Dec. 25, 26, 30, 31, 1983, Jan. 20, 21, 1984, Jan. 9, 1986; mimimum, 5.4 mg/L, Aug. 1, 3, 1986.
TURBIDITY: Maximum, 550 JTU, Oct. 1, 1985; minimum, 0 JTU, many days.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 353 mg/L, May 7, 1984; minimum daily mean, 0 mg/L, Oct. 7, 8, 11-14, 19, 1985.
SEDIMENT LOADS: Maximum daily, 16,900 tons, May 7, 1984; minimum daily, 0.02 ton, Oct. 11, 12, 1985, Aug. 3, 1986.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 142 microsiemens, Aug. 15; minimum, 27 microsiemens, May 26.
pH: Maximum, 7.9 units, July 13; minimum, 6.2 units, May 26.
WATER TEMPERATURE: Maximum, 33.0CC July 27, 29; minimum 0.5CC, many days.
DISSOLVED OXYGEN: Maximum, 14.2 mg/L, Jan. 9; minimum, 5.4 mg/L, Aug. 1, 3.
TURBIDITY: Maximum, 550 JTU, Oct. 1; minimum, 0 JTU, several days.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 321 mg/L, Feb. 18; minimum daily mean, 0 mg/L, Oct. 7, 8, 11-14, 19.
SEDIMENT LOADS: Maximum daily, 8,340 tons, Feb. 18; minimum daily, 0.02 ton, Oct. 11, 12, Aug. 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (F^3/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1985						
03...	1500	1100	14.0	38	11	33
NOV						
13...	1320	118	13.0	64	3	0.96
DEC						
18...	1230	302	2.5	56	4	3.3
FEB 1986						
03...	1240	210	3.5	60	0	0
MAR						
18...	1215	488	9.0	50	1	1.3
APR						
29...	1100	161	18.0	60	6	2.6
JUN						
11...	1355	969	19.5	42	15	39
JUL						
21...	1130	13	30.0	105	10	0.36
SEP						
02...	1225	118	20.0	93	11	3.5

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	78	48	54	88	86	87	49	47	47	44	42	43
2	52	48	51	88	88	88	49	47	47	44	42	42
3	38	38	38	88	86	87	45	43	45	44	40	41
4	42	38	41	86	76	81	44	44	44	44	40	41
5	44	42	43	88	74	80	48	44	46	46	42	42
6	44	42	43	78	68	73	46	44	46	42	42	42
7	44	42	44	68	60	63	51	45	46	44	42	42
8	46	44	45	60	60	60	47	47	47	42	42	42
9	52	46	47	58	58	58	50	48	49	46	42	45
10	52	48	50	60	58	59	50	50	50	44	42	43
11	54	52	53	62	60	61	54	50	53	44	42	44
12	56	54	55	64	62	63	54	54	54	46	44	44
13	60	56	57	64	64	64	54	52	54	46	44	44
14	62	58	60	64	62	63	54	50	52	46	44	45
15	62	62	62	66	64	65	50	48	48	46	44	45
16	70	62	65	68	66	68	48	46	48	46	44	44
17	82	64	73	66	64	65	46	44	46	44	44	44
18	80	78	79	70	64	67	44	40	42	46	42	43
19	84	80	82	64	64	64	44	38	40	46	42	45
20	88	84	86	64	64	64	38	38	38	46	42	45
21	90	88	88	64	62	63	44	38	39	46	44	45
22	90	88	88	62	60	60	44	40	41	46	46	46
23	90	88	89	64	56	59	44	38	40	48	46	47
24	90	88	89	56	54	56	44	40	41	48	44	46
25	88	86	87	54	52	54	44	40	41	44	44	44
26	88	86	87	54	52	54	44	40	41	44	42	44
27	86	84	85	65	55	58	42	40	42	42	40	41
28	84	82	83	61	37	50	46	40	42	40	40	40
29	84	82	84	46	38	43	46	42	43	40	40	40
30	84	82	83	46	44	46	44	42	43	42	40	40
31	84	84	84	---	---	---	44	42	43	42	40	41

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	40	40	40	46	44	44	64	60	62	60	58	58
2	40	38	39	49	45	45	66	62	64	58	56	57
3	---	---	---	45	45	45	70	66	68	59	57	58
4	---	---	---	50	46	46	70	68	68	58	56	57
5	---	---	---	52	46	48	70	68	69	62	57	60
6	---	---	---	48	46	48	72	70	71	64	60	62
7	---	---	---	48	46	46	76	72	73	67	63	65
8	---	---	---	52	46	47	76	74	75	68	65	67
9	---	---	---	52	48	50	74	72	73	69	65	67
10	---	---	---	52	50	51	72	66	69	70	66	68
11	---	---	---	56	52	54	70	68	69	71	69	70
12	---	---	---	60	56	58	72	68	70	73	68	70
13	---	---	---	60	58	58	72	68	70	72	69	70
14	---	---	---	60	54	56	68	66	68	74	69	72
15	---	---	---	64	56	60	68	68	68	82	74	77
16	---	---	---	58	54	56	68	64	66	87	82	85
17	---	---	---	58	52	55	64	62	63	92	86	89
18	---	---	---	52	50	51	66	62	64	92	87	89
19	40	36	38	52	50	51	68	64	66	89	84	87
20	36	34	36	54	50	50	68	68	68	83	74	78
21	39	37	38	50	48	49	70	68	70	73	70	72
22	39	39	39	50	46	48	70	68	70	72	69	71
23	40	40	40	52	46	47	---	---	---	75	34	57
24	40	40	40	50	48	49	---	---	---	42	33	37
25	47	41	42	52	50	51	---	---	---	35	32	34
26	45	41	43	54	52	53	---	---	---	33	27	31
27	46	44	46	56	54	55	---	---	---	39	34	36
28	45	44	45	56	54	55	---	---	---	39	36	38
29	---	---	---	58	56	57	---	---	---	39	37	38
30	---	---	---	64	56	59	61	60	61	41	38	39
31	---	---	---	62	58	60	---	---	---	43	40	41

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	46	43	44	95	90	93	100	90	94	99	89	94
2	49	46	47	103	87	94	99	91	95	94	63	87
3	51	49	50	122	101	110	100	90	95	98	63	73
4	51	50	51	122	93	107	98	88	93	72	65	68
5	71	52	59	108	93	100	101	89	95	69	65	66
6	70	58	64	113	105	109	99	90	94	73	69	70
7	57	55	56	115	106	110	97	90	93	75	73	74
8	62	56	59	116	108	111	101	91	95	76	74	74
9	64	58	62	114	107	110	99	92	95	78	74	75
10	50	33	38	113	103	107	97	89	93	82	78	79
11	48	43	43	109	102	105	97	81	93	85	81	82
12	51	47	49	107	100	103	96	89	93	88	81	84
13	52	49	50	115	94	102	112	86	97	90	80	83
14	55	49	53	106	98	100	134	111	124	97	90	94
15	57	54	56	103	97	100	142	128	134	92	85	89
16	61	56	59	99	96	97	131	103	121	87	84	85
17	62	59	61	107	98	103	103	94	97	84	81	83
18	64	62	63	117	106	111	100	96	98	82	81	81
19	68	62	65	123	114	118	104	97	101	87	83	85
20	72	66	69	126	117	121	112	102	109	85	83	84
21	74	69	72	119	99	109	115	109	112	93	85	88
22	78	71	75	104	96	100	121	111	115	101	94	98
23	81	74	78	106	97	100	119	109	114	98	96	97
24	83	78	80	106	98	102	117	104	110	101	96	99
25	85	78	82	107	99	103	115	101	107	102	98	100
26	86	79	83	107	99	102	108	97	102	103	98	100
27	90	81	85	107	98	102	103	91	96	104	97	100
28	92	85	88	106	98	100	93	80	87	103	97	100
29	94	88	91	107	96	100	79	75	77	104	97	100
30	96	90	92	106	92	97	95	76	88	104	99	101
31	---	---	---	93	89	92	98	93	95	---	---	---

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.5	6.7	7.3	7.2	--	--	7.1	7.1	7.1	7.0	7.1	6.9
2	6.9	6.7	7.3	7.2	--	--	7.1	7.1	7.1	7.0	7.1	7.0
3	6.8	6.8	7.3	7.2	--	--	7.1	7.0	7.0	6.9	7.1	7.0
4	6.9	6.7	7.2	7.2	--	--	7.1	7.0	--	--	7.1	7.0
5	7.0	6.9	7.4	7.2	--	--	7.1	7.0	--	--	7.0	6.6
6	7.1	6.9	7.3	7.3	--	--	7.1	7.1	--	--	6.8	6.7
7	7.1	6.9	7.2	7.1	--	--	7.1	7.1	--	--	6.8	6.7
8	7.1	7.0	7.2	7.1	--	--	7.1	7.1	--	--	6.8	6.7
9	7.1	7.0	7.2	7.2	--	--	7.1	7.1	--	--	6.8	6.7
10	7.1	7.0	7.2	7.2	--	--	7.1	7.1	--	--	6.8	6.7
11	7.1	7.0	7.2	7.1	--	--	7.1	7.1	--	--	6.8	6.7
12	7.1	7.0	7.2	7.1	--	--	7.1	7.1	--	--	6.8	6.7
13	7.0	7.0	7.2	7.1	--	--	7.2	7.1	--	--	6.8	6.6
14	7.0	7.0	--	--	--	--	7.2	7.1	--	--	6.7	6.5
15	7.0	6.9	--	--	--	--	7.2	7.1	--	--	6.8	6.6
16	7.1	7.0	--	--	--	--	7.2	7.1	--	--	6.8	6.6
17	7.1	7.0	--	--	--	--	7.1	7.1	--	--	6.8	6.6
18	7.1	7.0	--	--	7.1	7.1	7.1	7.1	--	--	6.9	6.5
19	7.1	7.0	--	--	7.1	7.0	7.1	7.1	6.5	6.5	6.8	6.5
20	7.0	7.0	--	--	7.1	7.0	7.2	7.1	6.7	6.5	6.9	6.5
21	7.1	7.0	--	--	7.1	7.0	7.2	7.1	6.7	6.6	6.9	6.6
22	7.1	7.0	--	--	7.1	7.0	7.1	7.0	6.8	6.7	6.9	6.6
23	7.1	7.0	--	--	7.1	7.0	7.1	7.0	6.9	6.8	6.9	6.6
24	7.1	7.1	--	--	7.1	7.0	7.1	7.0	6.9	6.8	6.9	6.6
25	7.1	7.1	--	--	7.1	7.0	7.1	7.0	7.0	6.8	6.9	6.6
26	7.2	7.1	--	--	7.1	7.1	7.1	7.0	7.0	6.9	6.9	6.6
27	7.2	7.1	--	--	7.1	7.1	7.2	7.1	7.0	6.9	6.9	6.6
28	7.2	7.1	--	--	7.1	7.0	7.2	7.1	7.1	6.9	6.9	6.6
29	7.3	7.2	--	--	7.1	7.0	7.2	7.1	--	--	6.9	6.6
30	7.3	7.2	--	--	7.1	7.0	7.1	7.1	--	--	6.9	6.6
31	7.3	7.2	--	--	7.1	7.0	7.1	7.0	--	--	6.9	6.6

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	6.6	6.9	6.7	6.9	5.6	7.1	6.8	7.2	6.9	7.3	7.2
2	7.0	6.7	7.0	6.7	6.9	6.6	7.3	6.8	7.3	6.9	7.4	6.9
3	6.9	6.7	7.0	6.7	7.0	6.7	7.2	6.9	7.3	6.9	7.2	6.8
4	6.9	6.7	7.0	6.8	6.9	6.7	7.3	7.1	7.3	6.9	6.9	6.8
5	6.9	6.7	7.0	6.8	7.1	6.7	7.3	7.1	7.4	6.9	6.9	6.8
6	6.9	6.7	6.9	6.7	7.0	6.9	7.3	7.1	7.4	6.9	7.0	6.8
7	6.9	6.7	6.9	6.7	7.0	6.7	7.4	7.0	7.6	6.9	7.1	6.9
8	6.9	6.7	6.8	6.7	7.0	6.7	7.4	7.0	7.4	6.9	7.1	6.9
9	7.0	6.7	6.9	6.6	7.0	6.7	7.4	7.0	7.4	6.9	7.2	7.0
10	7.1	6.8	6.9	6.6	6.6	6.3	7.5	6.9	7.5	6.9	7.2	7.0
11	7.1	6.8	6.8	6.7	6.9	6.5	7.2	6.9	7.5	6.9	7.3	7.0
12	7.0	6.9	7.1	6.7	7.0	6.7	7.3	6.9	7.2	6.9	7.4	7.0
13	7.0	6.8	7.0	6.8	7.2	6.7	7.9	6.9	7.3	7.0	7.2	6.9
14	7.0	6.8	7.0	6.8	7.2	6.7	7.2	6.9	7.4	7.2	7.2	7.1
15	6.9	6.7	7.0	6.9	7.2	6.7	7.2	6.9	7.6	7.2	7.3	7.1
16	6.9	6.8	7.1	6.9	7.1	6.8	7.2	6.9	7.8	7.2	7.2	7.1
17	7.0	6.9	7.1	6.9	7.0	6.8	7.2	7.0	7.4	7.1	7.2	7.0
18	7.0	6.9	7.0	6.8	7.1	6.8	7.3	7.0	7.4	7.1	7.2	7.0
19	7.0	6.9	7.0	6.7	7.1	6.8	7.4	7.0	7.5	7.1	7.3	7.0
20	7.0	6.8	7.0	6.9	7.0	6.8	7.4	7.0	7.6	7.1	7.2	7.0
21	6.9	6.7	7.1	6.9	7.0	6.9	7.2	7.0	7.6	7.1	7.2	7.0
22	6.8	6.6	7.2	7.0	7.0	6.8	7.3	7.0	7.5	7.1	7.3	7.1
23	--	--	7.5	6.4	7.0	6.8	7.3	6.9	7.5	7.1	7.2	7.1
24	--	--	6.8	6.3	7.0	6.7	7.3	6.9	7.5	7.1	7.3	7.1
25	--	--	6.5	6.4	7.1	6.7	7.4	7.0	7.4	7.0	7.3	7.1
26	--	--	6.5	6.2	7.1	6.7	7.4	6.9	7.4	7.0	7.3	7.0
27	--	--	6.6	6.4	7.1	6.7	7.3	6.9	7.5	7.0	7.3	7.0
28	--	--	6.6	6.5	7.1	6.7	7.3	6.9	7.2	7.0	7.4	7.0
29	--	--	6.6	6.4	7.1	6.7	7.3	6.9	7.3	7.0	7.3	7.0
30	7.0	6.8	6.7	6.5	7.2	6.8	7.3	7.0	7.4	7.2	7.4	7.0
31	--	--	6.8	6.6	--	--	7.2	6.9	7.4	7.2	--	--

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.0	14.5	15.5	16.0	15.5	16.0	13.5	13.0	13.0	1.0	.5	1.0
2	14.5	14.0	14.0	16.0	16.0	16.0	12.5	9.0	11.0	1.0	.5	1.0
3	14.5	14.0	14.0	16.0	15.0	15.5	9.0	6.5	7.5	1.5	1.0	1.0
4	16.0	14.5	15.0	15.0	12.5	14.0	6.5	6.0	6.0	1.5	1.0	1.0
5	15.5	15.0	15.0	12.5	11.0	11.5	6.5	6.0	6.5	1.5	1.5	1.5
6	14.5	13.5	14.0	11.0	10.5	11.0	6.5	6.0	6.5	1.5	.5	1.0
7	13.5	12.0	13.0	11.0	10.0	10.5	6.0	5.0	5.5	1.5	1.0	1.0
8	13.0	12.0	12.5	10.0	9.5	9.5	5.5	5.0	5.0	1.0	.5	1.0
9	14.0	12.5	13.5	9.0	8.5	9.0	6.5	5.5	6.0	1.0	.5	1.0
10	15.0	14.0	14.5	10.5	9.0	9.5	7.0	6.0	6.5	1.0	.5	1.0
11	16.0	14.5	15.5	12.0	10.5	11.0	8.0	6.5	7.5	1.0	.5	1.0
12	16.5	15.5	16.0	12.5	12.0	12.0	8.5	8.0	8.5	1.5	.5	1.0
13	17.5	16.5	17.0	12.5	12.0	12.5	8.5	7.5	8.0	1.0	.5	1.0
14	18.0	17.5	18.0	13.5	13.0	13.5	7.5	5.0	6.5	1.5	.5	1.0
15	18.5	18.0	18.0	14.0	13.5	14.0	4.5	3.5	3.5	1.5	.5	1.0
16	18.5	17.5	18.0	14.5	14.5	14.5	3.0	3.0	3.0	1.5	.5	1.0
17	18.0	16.5	17.0	14.5	13.5	13.5	3.0	2.5	3.0	1.5	1.0	1.0
18	18.0	17.0	17.5	14.0	13.0	13.5	3.0	2.0	2.5	1.5	1.0	1.5
19	18.5	17.5	18.0	14.5	13.5	14.0	2.0	1.0	1.0	2.5	2.0	2.0
20	18.5	18.0	18.0	14.5	13.5	14.0	1.0	1.0	1.0	3.0	2.5	2.5
21	19.5	18.5	19.0	13.5	12.0	12.5	1.0	.5	1.0	3.0	2.0	2.5
22	19.5	18.5	19.0	12.0	11.5	11.5	1.0	.5	1.0	4.0	3.0	3.5
23	19.0	18.5	18.5	11.5	10.5	10.5	1.0	1.0	1.0	4.0	3.5	3.5
24	19.0	18.5	18.5	10.5	10.5	10.5	1.5	1.0	1.5	3.5	2.5	3.0
25	19.0	18.0	18.5	12.0	10.5	11.0	1.0	.5	1.0	3.0	2.5	3.0
26	18.0	17.0	17.5	13.0	12.0	12.5	1.0	.5	.5	3.0	2.5	3.0
27	17.0	16.5	16.5	14.0	13.0	13.5	1.0	.5	.5	2.5	.5	1.0
28	17.0	16.5	16.5	15.5	14.0	14.5	1.0	.5	.5	1.0	.5	.5
29	16.5	16.0	16.5	14.5	13.5	14.0	1.0	.5	1.0	1.0	.5	.5
30	16.0	15.5	16.0	14.0	13.5	13.5	1.0	.5	1.0	1.0	.5	1.0
31	16.0	15.5	16.0	---	---	---	1.0	.5	1.0	1.5	.5	1.0

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03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.0	1.0	1.5	5.0	4.0	4.5	14.5	13.0	14.0	19.0	18.0	18.5
2	3.0	2.0	2.5	4.0	2.5	3.5	15.5	13.5	14.5	18.0	16.5	17.5
3	3.5	3.0	3.0	4.0	3.5	3.5	15.5	14.5	15.0	18.0	16.5	17.0
4	---	---	---	4.5	4.0	4.0	15.5	14.5	15.0	17.0	15.5	16.5
5	---	---	---	5.5	4.0	5.0	16.5	15.0	15.5	18.0	16.0	17.0
6	---	---	---	6.0	5.5	5.5	17.0	16.0	16.5	19.5	17.5	18.5
7	---	---	---	5.5	4.5	5.0	18.0	16.5	17.5	21.5	19.0	20.0
8	---	---	---	5.0	3.5	4.5	18.0	17.5	17.5	22.5	20.5	21.5
9	---	---	---	7.0	4.5	5.5	17.5	14.0	15.5	23.0	21.0	22.0
10	---	---	---	8.5	7.0	7.5	14.0	12.5	13.0	23.0	21.0	22.0
11	---	---	---	10.5	8.5	9.5	14.0	12.0	13.0	22.5	21.5	22.0
12	---	---	---	11.5	10.0	10.5	14.5	12.5	13.5	22.0	21.0	21.5
13	---	---	---	12.5	11.5	12.0	14.5	13.0	14.0	22.5	21.0	21.5
14	---	---	---	12.5	12.0	12.0	15.5	13.5	14.5	22.5	21.0	22.0
15	---	---	---	12.5	11.5	12.0	16.0	15.0	15.5	23.0	21.5	22.0
16	---	---	---	11.5	10.0	11.0	15.5	13.0	14.0	24.0	22.0	23.0
17	---	---	---	10.5	9.5	10.0	13.0	11.5	12.0	25.5	22.5	24.0
18	---	---	---	10.5	9.5	10.0	13.5	11.0	12.5	24.0	22.5	23.5
19	9.0	9.0	9.0	11.5	10.5	11.0	15.0	13.0	14.0	23.0	21.5	22.5
20	9.5	8.5	9.0	11.0	9.5	10.5	15.5	14.5	15.0	21.5	19.5	20.5
21	9.0	8.5	9.0	9.5	8.0	8.5	16.0	15.5	16.0	19.5	18.5	19.0
22	8.5	7.5	8.0	8.0	6.0	7.0	18.0	15.0	15.5	20.0	18.0	19.0
23	7.5	6.5	7.0	8.0	6.0	7.0	---	---	---	19.0	14.0	16.5
24	7.0	6.0	6.5	9.0	7.0	8.0	---	---	---	15.5	14.0	14.5
25	6.5	5.5	6.0	10.5	8.0	9.0	---	---	---	15.5	15.0	15.0
26	6.5	5.0	6.0	11.0	10.0	10.5	---	---	---	15.5	15.0	15.5
27	6.5	6.0	6.5	12.5	11.0	12.0	---	---	---	16.0	15.0	15.5
28	6.0	5.5	5.5	12.5	11.0	12.0	---	---	---	16.0	16.0	16.0
29	---	---	---	13.0	11.0	12.0	---	---	---	17.0	16.0	16.5
30	---	---	---	14.0	11.5	13.0	19.0	18.0	18.5	18.5	16.5	17.5
31	---	---	---	14.5	12.0	13.5	---	---	---	19.5	17.0	18.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.0	18.0	19.0	29.0	26.5	27.5	31.0	25.5	28.0	21.0	20.0	20.5
2	20.5	19.0	19.5	27.5	26.0	26.5	30.0	25.0	27.0	20.0	19.5	20.0
3	20.5	19.5	20.0	26.0	25.0	25.5	30.0	24.0	27.0	20.0	18.5	19.0
4	20.5	19.5	20.0	25.5	24.0	25.0	29.0	23.5	26.0	20.5	19.5	20.0
5	20.5	19.0	19.5	26.5	24.0	25.5	30.0	23.5	26.5	21.0	20.5	20.5
6	21.5	19.5	20.5	28.5	25.0	26.5	29.5	24.0	26.0	22.0	20.5	21.0
7	22.5	20.5	21.5	29.5	26.0	27.5	29.0	24.0	26.0	22.0	20.5	21.5
8	23.5	22.0	22.5	30.5	27.0	28.5	30.0	24.5	27.0	22.0	20.5	21.0
9	23.0	22.0	22.5	30.5	27.0	28.5	28.5	24.5	26.5	22.0	20.0	21.0
10	21.5	19.0	19.5	28.5	26.5	27.5	28.0	24.5	26.0	22.5	21.0	21.5
11	21.0	19.0	20.0	29.5	26.0	27.5	28.0	24.0	26.0	22.5	21.0	21.5
12	22.0	20.5	21.0	30.0	26.5	27.5	28.0	24.0	26.0	23.5	21.5	22.5
13	22.0	20.5	21.0	29.5	26.5	28.0	26.0	24.5	25.0	22.5	21.0	22.0
14	23.0	20.5	22.0	29.5	26.5	27.5	27.5	24.5	26.0	22.0	20.5	21.5
15	23.5	22.5	23.0	30.0	26.5	28.0	29.5	25.0	27.0	22.5	21.0	21.5
16	24.5	22.5	23.5	28.5	26.5	27.0	28.0	24.5	26.0	22.5	21.0	21.5
17	24.5	23.0	24.0	30.0	26.5	28.0	26.0	24.5	25.0	22.0	21.0	21.5
18	24.5	23.0	23.5	31.0	27.5	29.0	27.0	24.5	25.5	22.0	21.0	21.5
19	25.0	22.5	24.0	31.5	28.0	29.5	28.0	24.5	26.0	21.5	21.0	21.0
20	26.0	23.5	25.0	32.5	28.0	30.0	28.5	24.5	26.0	22.0	20.5	21.0
21	27.0	24.5	26.0	29.0	28.0	28.5	27.5	25.0	26.0	22.5	21.0	22.0
22	28.0	25.0	26.5	32.0	27.5	29.5	29.0	25.0	27.0	23.5	21.5	22.5
23	28.5	25.5	27.0	31.5	27.5	29.5	29.0	25.5	27.0	23.5	22.0	23.0
24	29.0	26.5	27.5	32.0	27.5	29.5	29.5	24.5	26.5	24.5	22.5	23.5
25	29.5	26.0	27.5	32.5	28.0	29.5	29.5	24.5	26.5	24.5	23.0	23.5
26	29.0	25.0	27.0	31.0	27.5	29.0	28.0	24.5	26.0	25.5	23.0	24.0
27	29.5	25.5	27.0	33.0	28.0	30.0	28.0	24.0	25.5	26.0	23.0	24.5
28	30.0	26.0	27.5	32.0	28.5	29.5	26.0	22.5	24.0	26.0	23.5	24.5
29	30.0	27.0	28.0	33.0	27.5	29.5	23.5	21.5	22.5	26.0	23.0	24.5
30	30.0	27.0	28.0	32.5	26.0	29.0	23.5	21.5	22.0	26.0	23.5	24.5
31	---	---	---	27.5	25.5	26.5	21.5	20.5	21.0	---	---	---

CUMBERLAND RIVER BASIN

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.6	9.0	9.4	9.1	8.9	9.0	9.4	9.3	9.4	13.4	13.2	13.3
2	9.7	9.6	9.7	9.0	8.8	8.9	10.8	9.4	10.2	13.5	13.3	13.3
3	9.7	9.6	9.7	9.1	8.9	9.0	11.9	10.8	11.5	13.3	13.1	13.2
4	9.8	9.3	9.6	9.8	9.1	9.4	12.4	11.9	12.1	13.2	13.1	13.2
5	9.7	9.3	9.5	10.4	9.8	10.1	11.9	11.6	11.8	13.1	12.9	13.0
6	10.1	9.5	9.9	10.6	10.4	10.5	12.0	11.6	11.8	13.4	13.1	13.2
7	10.5	9.6	10.1	10.7	10.4	10.5	12.5	11.9	12.2	14.0	13.2	13.6
8	10.5	10.1	10.3	11.1	10.7	10.9	12.4	12.1	12.2	14.1	13.9	14.0
9	10.3	10.0	10.1	11.3	11.0	11.1	12.1	11.8	11.9	14.2	14.0	14.1
10	10.0	9.7	9.8	11.2	10.9	11.0	12.2	11.6	11.9	14.0	13.9	13.9
11	9.7	9.4	9.5	10.8	10.6	10.7	11.8	11.1	11.5	14.0	13.8	13.9
12	9.4	9.1	9.2	10.6	10.3	10.3	11.0	10.8	11.9	13.9	13.8	13.8
13	9.1	8.8	8.9	10.3	10.1	10.1	10.9	10.6	10.7	13.9	13.7	13.8
14	8.9	8.5	8.6	10.2	9.9	10.1	12.2	10.9	11.6	13.9	13.8	13.9
15	8.5	8.3	8.4	10.2	9.8	10.0	13.1	12.2	12.7	14.0	13.8	14.0
16	8.7	8.3	8.5	9.8	9.2	9.4	13.2	12.7	12.9	14.0	13.9	14.0
17	9.0	8.5	8.7	10.1	9.2	9.7	13.2	12.8	13.0	13.9	13.8	13.8
18	8.9	8.7	8.8	10.1	9.6	9.9	13.2	12.8	13.2	13.8	13.6	13.7
19	8.8	8.6	8.7	9.9	9.4	9.8	13.6	13.1	13.4	---	---	---
20	8.6	8.4	8.5	9.6	9.1	9.4	13.5	13.4	13.4	---	---	---
21	8.6	8.3	8.4	10.3	9.5	9.9	13.7	13.3	13.5	---	---	---
22	8.4	8.2	8.3	10.4	9.9	10.1	13.6	13.4	13.5	---	---	---
23	8.4	8.3	8.3	10.9	10.1	10.5	13.3	13.1	13.2	---	---	---
24	8.5	8.3	8.4	10.9	10.4	10.7	13.1	13.0	13.1	---	---	---
25	8.7	8.4	8.5	10.8	10.3	10.6	13.5	13.0	13.3	---	---	---
26	9.0	8.6	8.8	10.2	9.7	10.0	13.5	13.4	13.5	---	---	---
27	9.0	8.8	8.9	9.6	9.0	9.3	13.4	13.3	13.4	---	---	---
28	9.0	8.9	9.0	9.3	7.3	8.8	13.5	13.3	13.4	---	---	---
29	9.0	8.8	8.9	9.3	8.8	9.2	13.5	13.3	13.4	---	---	---
30	9.2	9.0	9.1	9.5	9.3	9.4	13.5	13.4	13.5	---	---	---
31	9.2	9.0	9.1	---	---	---	13.4	13.2	13.3	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	12.9	12.0	12.5	10.4	9.8	10.1	8.9	8.5	8.7
2	---	---	---	13.1	12.4	12.8	10.2	9.8	10.0	9.2	8.7	9.0
3	---	---	---	12.8	12.4	12.6	10.0	9.4	9.7	9.3	8.8	9.1
4	---	---	---	12.6	12.3	12.5	10.9	9.5	9.8	9.4	9.0	9.2
5	---	---	---	12.7	12.1	12.4	9.9	9.4	9.7	9.2	9.0	9.1
6	---	---	---	12.3	10.7	11.5	9.6	9.2	9.4	9.0	8.7	8.8
7	---	---	---	12.1	10.3	11.2	9.5	9.0	9.2	8.7	8.4	8.6
8	---	---	---	12.4	10.1	11.2	9.2	8.7	9.0	8.4	8.2	8.3
9	---	---	---	12.3	10.7	11.5	10.1	8.8	9.5	8.4	8.0	8.2
10	---	---	---	11.7	10.2	11.0	10.7	9.8	10.2	8.4	8.0	8.2
11	---	---	---	11.3	10.0	10.6	10.7	9.9	10.2	8.3	8.1	8.2
12	---	---	---	11.1	10.6	10.8	10.5	9.9	10.2	8.4	8.0	8.2
13	---	---	---	10.6	10.2	10.4	10.3	9.7	10.0	8.4	8.1	8.2
14	---	---	---	10.6	10.1	10.3	10.0	9.6	9.8	8.4	8.1	8.2
15	---	---	---	10.8	10.1	10.4	9.8	9.3	9.6	8.3	8.0	8.2
16	---	---	---	11.3	10.4	10.8	10.1	9.3	9.7	8.2	7.9	8.1
17	---	---	---	11.6	10.6	11.1	10.7	10.0	10.3	8.1	7.7	7.9
18	---	---	---	11.7	10.8	11.4	10.9	10.5	10.7	8.0	7.4	7.7
19	11.6	11.4	11.5	10.9	10.5	10.7	10.5	9.9	10.2	7.9	7.4	7.6
20	11.5	11.1	11.4	11.3	10.5	10.9	9.9	9.6	9.8	8.2	7.6	8.0
21	11.3	11.1	11.2	12.0	10.9	11.6	---	---	---	8.6	8.2	8.4
22	11.6	10.9	11.4	12.6	11.5	12.1	---	---	---	8.7	8.5	8.6
23	12.1	11.6	11.8	12.5	11.7	12.1	---	---	---	9.3	9.2	8.8
24	12.0	11.6	11.8	12.3	11.5	11.9	---	---	---	9.4	9.0	9.3
25	12.4	11.9	12.1	11.9	11.1	11.5	---	---	---	9.3	9.0	9.2
26	12.2	11.6	12.0	11.5	10.7	11.1	---	---	---	9.2	8.7	9.1
27	11.8	11.4	11.6	11.1	10.4	10.7	---	---	---	9.2	8.8	9.1
28	12.4	11.7	12.1	11.2	10.2	10.7	---	---	---	9.1	9.0	9.0
29	---	---	---	11.1	10.3	10.7	---	---	---	9.2	8.8	9.1
30	---	---	---	10.8	10.1	10.5	9.2	8.9	9.1	9.1	8.7	9.0
31	---	---	---	10.6	9.9	10.3	---	---	---	9.1	8.7	8.9

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.0	8.6	8.8	7.2	6.5	6.8	7.0	5.4	6.1	8.2	7.7	7.9
2	8.9	8.5	8.7	6.9	6.6	6.8	7.1	5.5	6.2	8.9	8.0	8.3
3	8.9	8.4	8.6	7.5	6.8	7.1	7.1	5.4	6.3	9.0	8.0	8.8
4	8.8	8.4	8.6	7.6	7.2	7.4	7.3	5.7	6.4	8.8	8.5	8.6
5	9.0	8.5	8.7	7.5	7.2	7.4	7.3	5.7	6.4	8.6	8.2	8.4
6	8.7	8.2	8.5	7.4	7.0	7.2	7.9	5.6	6.7	8.5	8.2	8.3
7	8.5	7.9	8.2	7.7	6.8	7.2	7.8	6.0	6.8	8.6	8.1	8.4
8	8.1	7.7	7.9	7.6	6.8	7.2	7.7	6.0	6.7	8.6	8.2	8.5
9	7.8	7.1	7.6	7.6	6.7	7.1	7.9	6.0	6.9	8.7	8.4	8.5
10	8.5	7.3	8.5	7.3	6.6	6.9	7.6	6.0	6.7	8.8	8.3	8.5
11	8.6	8.2	8.6	7.2	6.5	6.8	7.6	6.0	6.9	8.8	8.1	8.4
12	8.5	8.0	8.3	7.5	6.6	7.0	7.4	6.2	6.9	8.6	7.8	8.1
13	8.6	8.0	8.3	7.4	6.7	7.0	7.6	6.9	7.3	8.5	7.6	8.0
14	8.9	7.9	8.2	7.4	6.7	7.0	7.7	7.0	7.3	8.5	8.1	8.3
15	8.5	7.8	8.3	7.5	6.8	7.1	7.8	6.7	7.2	8.5	8.0	8.2
16	8.3	7.8	8.1	7.4	6.8	7.1	7.7	6.3	6.9	8.4	8.1	8.2
17	8.1	7.7	8.0	7.5	6.9	7.2	6.9	6.6	6.8	8.4	7.9	8.2
18	8.2	7.6	7.9	7.7	6.9	7.3	7.5	6.5	7.0	8.3	8.0	8.2
19	7.9	7.6	7.9	7.6	6.7	7.1	7.7	6.5	7.0	8.5	8.0	8.2
20	7.8	7.4	7.6	7.5	6.6	7.0	7.8	6.4	7.0	8.5	8.1	8.3
21	7.6	7.2	7.4	7.5	6.3	6.9	7.9	5.8	7.1	8.4	7.6	8.2
22	7.5	7.1	7.3	7.2	6.1	6.6	7.8	6.5	7.1	8.3	7.9	8.1
23	7.5	6.9	7.2	7.2	6.0	6.5	7.8	6.5	7.0	8.1	7.8	7.9
24	7.4	6.7	7.0	7.3	5.9	6.5	7.8	6.4	7.0	8.0	7.6	7.8
25	7.6	6.7	7.1	7.3	5.9	6.5	7.7	6.2	6.8	7.9	7.4	7.6
26	7.6	6.8	7.2	7.1	5.7	6.2	7.7	6.1	6.7	7.9	7.2	7.5
27	7.6	6.8	7.2	7.0	5.6	6.2	7.5	6.2	6.7	7.9	7.1	7.4
28	7.5	6.6	7.0	7.0	5.6	6.2	7.2	6.3	6.6	7.9	6.9	7.3
29	7.5	6.6	7.0	7.0	5.6	6.2	7.9	6.7	7.7	7.9	6.8	7.2
30	7.4	6.6	6.9	7.0	5.6	6.2	8.2	7.8	8.0	8.1	6.7	7.2
31	---	---	---	6.8	5.6	6.1	8.2	7.4	7.8	---	---	---

TURBIDITY (JTU), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	550	45	9	6	---	---			---	---	9	7
2	120	45	20	5	---	---			---	---	9	6
3	45	25	9	6	---	---			---	---	8	6
4	25	20	35	1	---	---			---	---	8	6
5	20	15	35	20	---	---			---	---	10	4
6	15	10	45	25	---	---			---	---	10	6
7	15	10	25	20	---	---			---	---	7	5
8	15	15	25	20	---	---			---	---	---	---
9	15	9	30	15	---	---			---	---	---	---
10	10	10	15	15	---	---			---	---	---	---
11	10	6	20	9	---	---			---	---	---	---
12	8	6	10	8	---	---			---	---	---	---
13	9	6	10	9	---	---			---	---	---	---
14	8	4	---	---	---	---			---	---	---	---
15	6	4	---	---	---	---			---	---	---	---
16	7	5	---	---	---	---			---	---	---	---
17	10	5	---	---	---	---			---	---	---	---
18	15	1	---	---	---	---			---	---	15	2
19	4	1	---	---	20	1			25	20	15	7
20	6	3	---	---	3	---			20	15	15	9
21	9	5	---	---	3	---			20	9	15	10
22	20	4	---	---	6	---			10	8	15	10
23	6	4	---	---	7	4			9	8	---	---
24	8	6	---	---	7	3			9	7	---	---
25	15	7	---	---	6	2			10	7	---	---
26	25	7	---	---	2	---			9	7	---	---
27	9	7	---	---	3	---			9	7	---	---
28	15	8	---	---	3	1			9	6	---	---
29	25	7	---	---	6	1			---	---	---	---
30	10	2	---	---	6	3			---	---	---	---
31	7	4	---	---	6	3			---	---	---	---

CUMBERLAND RIVER BASIN

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	15	6						
2	10	3	---	---	8	6						
3	15	9	---	---	10	8						
4	10	7	---	---	10	8						
5	10	8	---	---	---	---						
6	10	7	---	---	---	---						
7	---	---	---	---	---	---						
8	---	---	---	---	---	---						
9	---	---	---	---	---	---						
10	---	---	---	---	---	---						
11	---	---	---	---	15	8						
12	---	---	---	---	15	9						
13	---	---	10	9	10	7						
14	---	---	7	6	9	5						
15	---	---	7	4	7	5						
16	---	---	7	4	9	4						
17	---	---	---	---	7	5						
18	---	---	---	---	10	5						
19	---	---	---	---	---	---						
20	---	---	---	---	---	---						
21	---	---	---	---	---	---						
22	---	---	---	---	---	---						
23	---	---	---	---	---	---						
24	---	---	---	---	---	---						
25	---	---	---	---	---	---						
26	---	---	---	---	---	---						
27	---	---	---	---	---	---						
28	---	---	30	15	---	---						
29	---	---	15	10	---	---						
30	---	---	15	8	---	---						
31	---	---	10	8	---	---						

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	4430	14	168	77	2	.36	1060	14	40
2	3470	12	112	79	2	.49	951	13	33
3	1030	11	29	85	2	.48	693	7	14
4	770	8	16	123	4	1.6	551	5	7.6
5	509	4	5.5	319	15	13	467	3	4.3
6	354	1	1.3	281	7	5.6	440	2	3.0
7	268	0	.22	226	5	3.2	358	2	2.4
8	210	0	.17	201	5	2.9	316	2	2.1
9	172	1	.24	172	5	2.5	288	2	1.5
10	147	1	.41	154	5	2.3	257	1	.96
11	132	0	.02	141	5	1.8	234	1	.78
12	120	0	.02	131	4	1.4	261	3	2.0
13	108	0	.05	124	4	1.3	358	4	3.4
14	100	0	.11	118	4	1.2	448	4	4.7
15	108	7	1.9	111	3	.76	387	4	3.8
16	153	6	2.6	116	3	.84	360	3	3.2
17	124	1	.38	162	8	3.7	330	3	2.6
18	106	1	.20	194	5	2.5	295	4	2.9
19	95	0	.08	191	4	1.9	260	6	4.4
20	89	1	.15	174	4	1.7	240	6	3.7
21	87	2	.36	162	2	.80	230	4	2.5
22	86	1	.15	218	3	1.7	220	3	1.8
23	85	1	.20	317	7	5.7	219	1	.54
24	91	1	.25	308	9	7.9	207	1	.53
25	106	1	.29	269	6	4.2	200	1	.45
26	102	1	.20	236	3	2.0	190	1	.48
27	91	1	.20	346	28	27	180	4	1.7
28	86	1	.23	3870	214	3540	170	2	.72
29	81	1	.26	5260	163	2540	160	1	.44
30	78	1	.23	1820	60	324	150	1	.26
31	76	1	.27	---	---	---	152	1	.26
TOTAL	13464	---	340.99	15985	---	6502.83	10632	---	150.02
		JANUARY			FEBRUARY			MARCH	
1	182	2	.93	175	8	3.7	417	3	3.8
2	190	2	.93	185	3	1.6	374	3	2.7
3	172	1	.36	210	5	2.7	360	2	1.8
4	164	1	.40	248	14	9.5	334	2	1.6
5	157	1	.30	649	196	474	305	3	2.8
6	155	2	.77	1220	149	495	294	2	2.0
7	150	4	1.7	1530	76	318	280	4	2.8
8	140	5	1.7	1090	50	146	244	4	2.6
9	135	8	2.9	792	32	68	220	3	1.5
10	130	8	2.7	623	18	30	211	1	.84
11	125	5	1.5	559	13	19	217	2	.98
12	121	5	1.5	432	8	9.6	225	2	1.2
13	120	4	1.3	350	3	2.7	303	4	4.0
14	115	2	.74	358	3	3.0	599	10	17
15	110	2	.60	387	3	3.5	594	4	6.1
16	108	3	.77	380	6	6.0	726	6	12
17	105	3	.95	3780	109	2280	600	5	8.7
18	105	2	.65	8650	321	8340	505	6	7.7
19	146	2	.84	3050	63	567	524	6	8.1
20	240	3	2.2	1640	19	86	528	4	6.1
21	205	3	1.8	1120	13	40	414	4	4.3
22	186	4	1.9	834	8	17	354	5	4.8
23	176	5	2.3	660	5	9.3	322	3	3.0
24	162	6	2.8	563	4	5.7	296	2	1.5
25	159	1	.62	532	3	4.5	264	1	1.1
26	181	5	2.7	456	3	3.5	239	2	1.0
27	210	6	3.5	474	3	4.3	224	2	1.2
28	200	8	4.2	504	4	5.5	211	2	1.3
29	190	1	.70	---	---	---	191	3	1.7
30	180	2	.93	---	---	---	176	3	1.5
31	178	5	2.6	---	---	---	165	2	1.0
TOTAL	4897	---	47.79	31451	---	12955.1	10716	---	116.72

CUMBERLAND RIVER BASIN

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			MAY			JUNE	
1	154	3	1.2	133	6	2.0	521	8	11
2	146	4	1.6	125	9	2.9	378	5	5.4
3	139	2	.77	114	8	2.4	340	9	8.1
4	132	2	.58	102	6	1.7	269	8	5.9
5	124	1	.45	93	5	1.1	390	12	14
6	118	1	.37	88	5	1.2	353	10	9.6
7	117	1	.18	84	6	1.4	286	7	5.6
8	157	3	1.3	88	6	1.5	264	6	4.1
9	293	4	2.9	91	5	1.1	624	61	301
10	221	3	1.8	85	4	.96	1630	117	602
11	185	2	1.1	72	4	.72	1040	18	49
12	169	3	1.2	66	4	.71	663	17	30
13	156	3	1.3	65	5	.81	442	11	13
14	143	2	.88	72	7	1.3	302	8	6.7
15	138	2	.73	74	8	1.5	218	6	3.7
16	132	2	.74	62	9	1.5	166	6	2.7
17	123	3	1.1	52	5	.76	128	5	1.7
18	117	4	1.2	47	3	.40	101	4	1.0
19	110	2	.68	50	3	.35	82	5	1.1
20	106	3	.84	58	4	.70	68	5	.86
21	157	8	3.6	68	4	.80	56	4	.56
22	225	10	6.2	58	3	.46	47	3	.34
23	198	8	4.2	2040	199	2210	41	3	.29
24	167	7	2.9	4750	207	3160	35	2	.20
25	153	5	2.2	4080	110	1240	30	3	.22
26	145	4	1.5	3510	93	1000	25	6	.43
27	136	2	.83	2990	48	394	22	5	.27
28	134	1	.49	3280	48	433	21	4	.20
29	160	6	2.8	2190	23	133	25	5	.34
30	156	8	3.4	1260	17	59	22	3	.17
31	---	---	---	775	11	22	---	---	---
TOTAL	4611	---	49.04	26622	---	8677.27	8589	---	1079.48
		JULY			AUGUST			SEPTEMBER	
1	29	10	.85	5.2	3	.05	42	9	1.0
2	68	11	2.3	4.5	3	.04	330	67	99
3	128	15	5.2	3.9	2	.02	984	80	240
4	101	6	1.6	3.6	3	.03	301	26	23
5	61	4	.66	3.4	4	.04	200	11	6.0
6	43	3	.35	3.2	4	.04	149	6	2.7
7	31	8	.67	3.3	6	.05	103	4	1.1
8	24	4	.28	3.3	4	.04	69	3	.64
9	20	3	.19	3.2	4	.04	50	3	.37
10	20	7	.37	3.4	15	.16	41	3	.28
11	20	6	.33	5.1	16	.21	33	3	.23
12	17	6	.26	49	11	2.6	48	6	.84
13	23	17	1.2	71	5	.98	119	11	3.0
14	25	13	.88	35	4	.41	108	5	1.3
15	21	7	.41	22	4	.22	71	4	.70
16	34	8	.81	28	105	14	79	11	2.3
17	35	7	.68	48	40	5.3	89	29	7.1
18	27	7	.54	23	14	.88	76	30	6.3
19	20	7	.39	15	7	.29	62	16	2.7
20	17	7	.31	13	15	.52	67	5	.88
21	14	15	.53	12	21	.67	109	10	3.1
22	12	16	.53	10	9	.26	87	4	.89
23	11	11	.35	9.2	5	.11	69	3	.60
24	9.6	9	.22	9.5	5	.12	59	4	.63
25	7.9	7	.15	7.0	4	.08	50	3	.36
26	7.1	8	.15	5.8	4	.06	42	2	.22
27	7.5	6	.12	7.3	17	.42	36	2	.15
28	7.4	4	.07	14	12	.44	30	1	.11
29	6.0	2	.04	60	8	1.4	27	2	.13
30	6.3	6	.11	40	6	.64	24	3	.17
31	6.0	4	.07	26	7	.53	---	---	---
TOTAL	858.8	---	20.62	546.9	---	30.65	3554	---	405.80

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN

LOCATION.--Lat 36°28'38", long 84°40'09", Scott County, Hydrologic Unit 05130104, on left bank at bridge on State Route 297, 1.0 mile above Anderson Branch, 1.3 miles below North White Oak Creek, 10.1 miles southwest of Oneida, and at mile 70.1.

DRAINAGE AREA.--806 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year. Occasional discharge measurements, water years 1961-62, 1979-80.

GAGE.--Water-stage recorder. Datum of gage is 862.79 ft, Sandy Hook datum.

REMARKS.--Estimated daily discharges: Oct. 5-23, Dec. 27-31, Jan. 8-18, and Jan. 27-30. Records good except for periods of estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,100 ft^3/s, May 7, 1984, gage height, 31.22 ft; minimum discharge, 19 ft^3/s, Sept. 23-26, 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	0300	22,000	20.05	May 24	0130	21,100	19.29
Feb. 18	0500	*29,500	*22.76				

Minimum daily discharge, 33 ft^3/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9050	237	3170	627	605	1360	558	438	1190	130	67	365
2	1700	238	2750	713	618	1270	528	403	1760	164	55	1570
3	2580	275	2010	697	672	1220	503	364	1350	354	48	4060
4	1250	464	1620	689	766	1140	473	330	1090	369	42	1220
5	880	1230	1410	647	1740	1040	436	305	1080	217	36	755
6	680	1140	1340	587	3840	981	416	290	1050	153	34	513
7	570	874	1130	558	4010	919	415	277	924	123	33	359
8	470	742	1020	550	3230	819	484	291	746	104	37	276
9	400	630	936	510	2340	735	965	306	884	91	45	214
10	350	547	838	490	1820	706	854	278	3580	82	46	165
11	320	495	766	470	1600	715	726	242	2940	90	406	140
12	300	450	816	454	1290	755	656	221	1790	161	960	185
13	270	414	1170	452	1060	907	599	230	1150	159	437	397
14	250	390	1640	440	1020	1580	554	249	323	202	269	286
15	280	367	1520	410	1070	2270	528	242	615	287	186	192
16	260	367	1380	400	1080	2580	496	215	494	256	158	197
17	300	556	1220	380	8360	2010	444	186	394	268	199	251
18	280	850	1070	360	24000	1620	425	167	341	247	154	236
19	260	738	886	495	8370	2330	400	169	287	187	129	184
20	240	659	795	958	4220	2930	375	221	239	130	113	190
21	230	597	767	839	3050	1840	496	233	211	105	154	235
22	220	805	643	755	2240	1420	683	212	188	87	169	227
23	400	1610	733	713	1800	1220	633	4080	168	86	119	190
24	340	1370	724	652	1540	1080	554	12900	149	79	100	298
25	368	1110	669	628	1480	952	509	10300	132	73	89	277
26	367	924	617	687	1290	849	492	6000	117	63	83	180
27	321	1010	580	760	1330	798	461	5590	101	67	105	144
28	287	9290	560	720	1530	747	439	5810	94	64	168	115
29	262	15500	540	710	---	678	528	3940	113	55	324	97
30	255	4920	520	680	---	631	534	2570	163	52	287	93
31	243	---	500	621	---	593	---	1630	---	72	206	---
TOTAL	26983	48799	34340	18652	85971	38695	16164	58689	24163	4577	5258	13611
MEAN	870	1627	1108	602	3070	1248	539	1893	805	148	170	454
MAX	9050	15500	3170	958	24000	2930	965	12900	3580	369	960	4060
MIN	220	237	500	360	605	593	375	167	94	52	33	93

CAL YR 1985	TOTAL	413072	MEAN	1132	MAX	15500	MIN	75
WTR YR 1986	TOTAL	375902	MEAN	1030	MAX	24000	MIN	33

BEST COPY AVAILABLE

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1979 to July 1980, February 1984 to September 1986 (discontinued).
PERIOD OF DAILY RECORD.--October 1985 to September 1986.
INSTRUMENTATION.--Five parameter water-quality monitor and sediment pumping sampler since October 1985.
REMARKS:--Interruptions in the record were due to malfunction of the instruments.
EXTREMES FOR PERIOD OF RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 418 mg/L, Nov. 29, 1985; minimum daily mean, 1 mg/L, on several days during 1986 water year.
SEDIMENT LOADS: Maximum daily, 25,100 tons, Feb. 18, 1986; minimum daily, 0.27 ton, Aug. 7, 1986.
EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 418 mg/L, Nov. 29; minimum daily mean, 1 mg/L, on several days during the year.
SEDIMENT LOADS: Maximum daily, 25,100 tons, Feb. 18; minimum daily, 0.27 ton, Aug. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (F^3/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1985						
01...	1530	8660	15.5	76	299	6990
NOV						
12...	1305	439	12.0	150	1	1.2
DEC						
19...	1505	847	2.0	134	0	0
FEB 1986						
05...	1250	1360	4.0	138	8	29
MAR						
17...	1445	1880	10.0	115	10	51
APR						
30...	1700	539	18.0	171	2	2.9
JUN						
13...	1555	1060	21.0	220	21	60
JUL						
22...	1125	87	31.0	260	8	1.9
SEP						
04...	1500	1150	--	--	82	255

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	80	72	76	196	188	192	104	100	102	166	150	155
2	84	72	80	196	190	192	108	100	104	190	168	181
3	98	86	90	204	194	198	108	102	105	192	186	190
4	128	100	118	202	190	196	126	104	111	194	188	191
5	138	124	128	258	200	226	120	106	113	194	182	189
6	144	138	142	258	222	246	122	108	115	182	166	175
7	136	126	132	220	180	196	132	116	124	168	160	164
8	128	120	124	178	160	170	128	104	116	168	160	164
9	126	120	124	160	156	158	110	98	104	170	160	166
10	126	118	122	158	152	154	108	100	104	160	146	153
11	130	120	126	158	146	152	134	122	128	170	148	155
12	132	124	128	154	150	152	130	112	117	192	156	171
13	134	130	132	158	150	154	134	112	123	198	158	168
14	134	132	134	154	148	153	150	124	137	206	160	185
15	134	130	132	154	148	151	128	108	118	214	160	187
16	146	130	140	---	---	---	108	98	104	---	---	---
17	148	138	144	---	---	---	100	88	93	---	---	---
18	144	136	140	---	---	---	90	82	86	---	---	---
19	150	144	146	190	186	189	138	82	135	---	---	---
20	150	146	148	190	186	187	134	128	131	---	---	---
21	150	146	148	186	174	181	134	128	132	---	---	---
22	152	146	150	174	150	160	138	132	136	184	180	182
23	240	152	196	188	162	182	136	132	134	184	176	181
24	254	236	248	176	144	159	140	132	137	176	160	167
25	248	236	244	144	130	139	146	140	142	158	154	157
26	288	248	278	130	126	128	152	144	150	154	152	153
27	308	276	294	132	124	127	148	142	145	154	100	144
28	294	260	282	132	80	110	148	144	145	156	96	134
29	256	218	236	94	76	88	156	150	154	150	92	125
30	216	206	210	100	90	96	162	156	158	150	90	102
31	204	196	200	---	---	---	158	152	155	106	94	98

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	148	94	126	---	---	---	156	148	152	174	162	169
2	144	142	143	---	---	---	---	---	---	171	164	169
3	146	142	143	---	---	---	---	---	---	168	162	166
4	150	144	146	---	---	---	---	---	---	171	165	168
5	150	120	134	---	---	---	---	---	---	173	166	169
6	154	120	139	---	---	---	---	---	---	175	168	171
7	116	104	106	---	---	---	---	---	---	179	168	175
8	108	104	107	---	---	---	---	---	---	178	169	174
9	106	106	106	---	---	---	---	---	---	175	167	171
10	108	106	107	140	138	139	---	---	---	178	170	174
11	112	108	110	142	138	140	---	---	---	175	170	173
12	116	112	115	158	144	151	---	---	---	173	169	171
13	118	114	115	152	126	136	---	---	---	170	163	167
14	113	104	115	148	132	141	---	---	---	175	163	171
15	124	116	119	150	132	141	162	154	157	187	175	182
16	124	120	122	134	116	123	160	152	157	183	178	182
17	---	---	---	116	112	115	162	154	158	185	180	182
18	---	---	---	114	110	112	164	152	160	187	182	185
19	---	---	---	166	106	121	168	156	163	187	180	184
20	---	---	---	168	124	142	166	160	164	181	168	173
21	---	---	---	124	124	124	170	160	163	187	171	177
22	---	---	---	130	124	126	170	162	167	197	188	192
23	---	---	---	138	130	132	172	162	166	196	74	160
24	---	---	---	146	138	142	170	162	165	152	96	133
25	---	---	---	150	130	138	172	164	169	112	82	101
26	---	---	---	134	132	133	178	164	172	148	81	122
27	---	---	---	138	132	136	184	172	178	80	73	76
28	---	---	---	146	134	141	182	168	176	84	75	79
29	---	---	---	148	140	143	174	162	169	---	---	---
30	---	---	---	146	140	144	174	164	170	---	---	---
31	---	---	---	152	144	147	---	---	---	---	---	---

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.8	6.6	7.5	7.4	6.6	6.5	7.3	7.3	7.5	7.3	--	--
2	6.7	6.6	7.4	7.4	6.6	6.6	7.4	7.3	7.5	7.3	--	--
3	6.8	6.7	7.4	7.4	6.9	6.6	7.4	7.4	7.5	7.3	--	--
4	7.0	6.8	7.4	7.4	6.8	6.7	7.4	7.4	7.6	7.3	--	--
5	7.1	7.0	7.5	7.4	6.7	6.7	7.4	7.4	7.6	7.2	--	--
6	7.2	7.1	7.5	7.5	6.7	6.7	7.4	7.3	7.4	7.3	--	--
7	7.1	7.1	7.5	7.4	6.7	6.7	7.3	7.3	7.4	7.2	--	--
8	7.1	7.1	7.4	7.3	7.1	6.6	7.4	7.3	7.3	7.2	--	--
9	7.1	7.0	7.4	7.3	7.1	7.1	7.4	7.4	7.3	7.2	--	--
10	7.2	7.1	7.4	7.3	7.2	7.1	7.4	7.4	7.3	7.2	--	--
11	7.3	7.1	7.4	7.2	7.2	7.1	7.4	7.4	7.3	7.2	7.2	7.1
12	7.3	7.1	7.3	7.2	7.2	7.1	7.4	7.4	7.4	7.3	7.2	7.1
13	7.3	7.1	7.4	7.2	7.2	7.1	7.4	7.4	7.4	7.3	7.1	7.0
14	7.3	7.1	7.5	7.3	7.3	7.2	7.5	7.4	7.4	7.3	7.1	7.0
15	7.1	7.0	7.6	7.3	7.3	7.3	--	--	7.5	7.3	7.1	7.1
16	7.3	7.1	--	--	7.3	7.2	--	--	--	--	7.1	7.0
17	7.2	7.1	--	--	7.2	7.2	--	--	--	--	7.2	7.0
18	7.2	7.1	--	--	7.2	7.2	--	--	--	--	7.1	7.0
19	7.2	7.1	7.7	7.4	7.3	7.2	--	--	--	--	7.1	7.0
20	7.2	7.1	7.6	7.4	7.2	7.2	--	--	--	--	7.2	7.1
21	7.2	7.1	7.6	7.4	7.2	7.2	--	--	--	--	7.2	7.1
22	7.2	7.1	7.5	7.4	7.2	7.2	--	--	--	--	7.1	7.0
23	7.4	7.1	7.5	7.4	7.2	7.2	7.5	7.4	--	--	7.0	7.0
24	7.4	7.4	7.4	7.3	7.2	7.2	7.5	7.4	--	--	7.0	6.9
25	7.5	7.4	7.4	7.3	7.3	7.2	7.4	7.4	--	--	7.1	6.9
26	7.7	7.5	7.4	7.2	7.3	7.2	7.5	7.3	--	--	7.2	7.1
27	7.6	7.5	7.4	7.2	7.3	7.3	7.5	7.3	--	--	7.2	7.1
28	7.6	7.5	7.3	6.6	7.3	7.2	7.5	7.4	--	--	7.2	7.1
29	7.6	7.5	6.7	6.5	7.3	7.3	7.4	7.4	--	--	7.2	7.2
30	7.5	7.4	6.6	6.5	7.3	7.3	7.5	7.4	--	--	7.2	7.2
31	7.5	7.4	--	--	7.3	7.3	7.5	7.4	--	--	7.3	7.2

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.2	7.1	7.2	7.0								
2	--	--	7.3	7.1								
3	--	--	7.3	7.1								
4	--	--	7.3	7.1								
5	--	--	7.4	7.1								
6	--	--	7.4	7.2								
7	--	--	7.4	7.2								
8	--	--	7.3	7.2								
9	--	--	7.3	7.1								
10	--	--	7.3	7.1								
11	--	--	7.3	7.1								
12	--	--	7.2	7.1								
13	--	--	7.2	7.1								
14	--	--	7.2	7.1								
15	7.4	7.3	7.3	7.1								
16	7.3	7.3	7.3	7.2								
17	7.4	7.3	7.2	7.2								
18	7.4	7.3	7.2	7.1								
19	7.4	7.3	7.1	7.1								
20	7.4	7.3	7.1	7.0								
21	7.4	7.3	7.2	7.1								
22	7.4	7.2	7.3	7.2								
23	7.4	7.2	7.3	6.5								
24	7.3	7.2	6.6	6.5								
25	7.3	7.2	6.6	6.5								
26	7.3	7.1	6.6	6.5								
27	7.3	7.1	6.5	6.4								
28	7.2	7.1	6.6	6.4								
29	7.3	7.1	--	--								
30	7.4	7.1	--	--								
31	--	--	--	--								

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	15.5	15.0	15.0	16.0	16.0	16.0	14.0	13.5	13.5	1.5	1.0	1.0
2	15.0	14.5	14.5	16.0	16.0	16.0	13.5	10.5	12.0	1.5	1.0	1.0
3	14.5	14.0	14.5	16.0	15.5	16.0	10.5	8.0	9.5	2.0	1.5	1.5
4	16.0	14.5	15.0	15.5	13.5	14.5	8.0	7.0	7.5	2.0	1.5	2.0
5	16.0	15.5	15.5	13.5	12.0	12.5	7.0	5.0	7.0	2.5	2.0	2.0
6	15.0	14.5	14.5	12.0	11.5	11.5	7.0	6.5	7.0	2.0	1.5	1.5
7	14.5	13.5	14.0	11.5	10.5	11.0	6.5	6.5	6.5	2.0	1.5	1.5
8	14.5	13.5	14.0	10.5	10.0	10.0	6.5	6.0	6.0	3.0	1.0	2.0
9	15.0	13.5	14.5	10.0	9.0	9.5	6.5	6.0	6.0	1.0	.5	1.0
10	15.5	14.5	15.0	10.5	9.5	10.0	6.5	6.5	6.5	1.5	.5	1.0
11	16.5	15.5	16.0	11.5	10.5	11.0	7.5	6.5	7.0	1.0	.5	1.0
12	17.0	16.5	16.5	12.0	12.0	12.0	8.5	7.5	8.5	1.0	.5	1.0
13	18.0	17.0	17.5	13.0	12.5	12.5	8.5	8.0	8.5	1.0	1.0	1.0
14	18.5	18.0	18.0	13.5	13.0	13.0	8.0	6.0	7.0	1.0	.5	1.0
15	18.5	18.5	18.5	14.0	13.5	14.0	6.0	4.5	5.0	---	---	---
16	19.0	18.5	18.5	---	---	---	4.5	3.5	4.0	---	---	---
17	18.5	18.0	18.5	---	---	---	3.5	3.5	3.5	---	---	---
18	18.5	18.0	18.0	---	---	---	3.5	2.5	3.0	---	---	---
19	18.5	18.0	18.5	15.0	14.0	14.5	2.5	1.5	1.5	---	---	---
20	19.0	18.5	19.0	15.0	14.5	14.5	2.0	1.5	1.5	---	---	---
21	19.5	19.0	19.0	14.0	13.0	13.5	1.5	1.0	1.5	---	---	---
22	19.0	19.0	19.0	13.0	12.0	12.5	1.0	1.0	1.0	---	---	---
23	19.5	19.0	19.0	12.0	11.5	12.0	1.5	1.0	1.5	4.5	4.0	4.0
24	19.0	19.0	19.0	11.5	11.0	11.5	2.0	1.5	1.5	4.0	3.5	3.5
25	19.0	18.5	19.0	12.0	11.5	11.5	1.5	1.0	1.0	3.5	3.5	3.5
26	18.5	18.0	18.0	13.0	12.0	12.5	1.0	.5	1.0	3.5	3.0	3.5
27	18.0	17.5	17.5	14.0	13.0	13.5	1.0	.5	1.0	3.0	1.0	2.0
28	17.5	17.5	17.5	15.0	14.0	14.5	1.0	1.0	1.0	1.0	.5	.5
29	17.5	16.5	17.0	15.0	14.0	14.5	1.0	1.0	1.0	1.0	.5	.5
30	16.5	16.0	16.5	14.0	14.0	14.0	1.0	1.0	1.0	1.0	.5	1.0
31	16.0	16.0	16.0	---	---	---	1.0	1.0	1.0	1.5	1.0	1.0

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.0	1.0	1.5	---	---	---	14.5	13.5	13.5	19.0	18.5	18.5
2	3.0	2.0	2.5	---	---	---	---	---	---	19.0	18.0	18.5
3	4.5	3.0	3.5	---	---	---	---	---	---	18.5	17.5	17.5
4	6.5	4.5	5.5	---	---	---	---	---	---	17.5	16.5	17.0
5	9.0	6.5	7.5	---	---	---	---	---	---	18.0	16.5	17.5
6	10.0	9.0	9.5	---	---	---	---	---	---	19.0	17.5	18.5
7	9.5	8.5	9.0	---	---	---	---	---	---	20.5	19.0	19.5
8	8.5	7.5	8.0	---	---	---	---	---	---	21.5	20.0	21.0
9	7.5	6.5	7.0	---	---	---	---	---	---	22.5	21.0	21.5
10	6.5	5.0	6.0	8.0	6.5	7.5	---	---	---	22.5	21.5	22.0
11	5.0	3.5	4.5	9.5	8.0	9.0	---	---	---	22.5	21.5	22.0
12	3.5	2.0	2.5	11.0	9.5	10.5	---	---	---	22.0	21.5	21.5
13	2.0	2.0	2.0	12.0	11.0	12.0	---	---	---	22.0	21.0	21.5
14	2.0	1.0	1.0	12.0	12.0	12.0	---	---	---	22.0	21.0	21.5
15	1.5	1.0	1.0	12.0	11.0	11.5	16.0	15.0	15.5	22.5	21.5	22.0
16	2.0	1.0	1.5	11.0	10.0	10.5	15.5	14.0	14.5	23.5	22.0	23.0
17	---	---	---	10.5	9.5	10.0	14.0	12.5	13.0	24.0	23.0	23.5
18	---	---	---	10.5	9.5	10.0	13.5	12.0	12.5	23.5	23.0	23.5
19	---	---	---	12.0	11.0	11.0	15.0	13.0	14.0	23.0	22.0	22.5
20	---	---	---	11.5	10.5	11.0	15.0	14.5	14.5	22.0	20.5	21.0
21	---	---	---	10.5	8.5	9.0	15.0	14.0	14.5	20.5	19.5	20.0
22	---	---	---	8.0	7.0	7.5	14.0	13.5	13.5	20.0	19.0	19.5
23	---	---	---	7.5	6.5	7.0	13.5	12.5	13.0	20.0	15.0	18.0
24	---	---	---	8.5	7.5	8.0	14.0	12.5	13.5	16.0	15.0	15.5
25	---	---	---	10.0	8.5	9.0	15.5	13.5	14.5	16.0	15.5	16.0
26	---	---	---	11.0	10.0	10.5	17.0	15.0	16.0	16.0	16.0	16.0
27	---	---	---	12.0	11.0	11.5	18.5	16.5	17.5	16.5	16.0	16.0
28	---	---	---	12.5	11.5	12.0	18.5	18.0	18.0	17.0	16.0	16.5
29	---	---	---	13.0	12.0	12.5	18.5	17.5	18.0	---	---	---
30	---	---	---	14.0	12.5	13.0	19.5	17.5	18.5	---	---	---
31	---	---	---	14.0	13.0	13.5	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												

CUMBERLAND RIVER BASIN

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.0	9.2	9.7	9.4	9.0	9.3	8.6	8.2	8.4	13.6	13.4	13.5
2	10.0	8.8	9.6	9.3	9.0	9.2	9.0	8.4	8.7	13.6	13.4	13.5
3	9.7	9.6	9.7	9.4	9.1	9.2	11.2	8.2	9.7	13.4	13.2	13.3
4	9.7	9.2	9.5	9.9	9.3	9.5	10.5	10.1	10.3	13.5	13.2	13.3
5	9.5	9.2	9.3	10.5	9.0	10.2	10.2	10.0	10.1	13.4	13.2	13.3
6	9.8	9.3	9.5	10.7	10.3	10.6	10.1	9.8	10.0	13.5	13.3	13.4
7	9.9	9.5	9.6	10.9	10.3	10.7	9.8	8.8	9.3	13.6	13.4	13.5
8	9.9	9.5	9.8	11.3	10.9	11.1	12.0	8.4	10.2	14.0	12.0	13.8
9	10.0	9.7	9.9	11.4	11.0	11.2	12.1	11.9	12.0	13.7	13.6	13.7
10	9.9	9.6	9.7	11.3	11.0	11.2	12.3	11.6	12.0	13.5	12.3	13.3
11	9.7	9.4	9.5	11.1	10.8	11.0	11.7	11.4	11.6	13.5	12.8	13.3
12	9.5	9.3	9.4	10.9	10.5	10.7	11.4	11.2	11.3	13.4	13.3	13.4
13	9.4	9.0	9.2	10.7	10.2	10.4	11.4	11.1	11.2	13.4	13.2	13.2
14	9.2	8.7	9.0	10.6	10.2	10.4	12.1	11.4	11.8	13.1	12.5	12.8
15	9.0	8.5	8.9	10.6	10.0	10.3	12.7	12.1	12.4	---	---	---
16	9.1	8.8	9.0	10.2	9.9	10.0	12.9	12.6	12.8	---	---	---
17	9.3	8.9	9.1	10.5	9.8	10.2	13.0	12.8	12.9	---	---	---
18	9.2	9.0	9.1	10.4	10.0	10.2	13.1	12.8	13.0	---	---	---
19	9.2	8.9	9.1	10.5	9.9	10.2	13.4	13.1	13.2	---	---	---
20	9.0	8.8	8.9	10.0	9.7	9.8	13.8	13.6	13.7	---	---	---
21	8.8	8.7	8.8	10.5	9.9	10.2	13.9	13.7	13.8	---	---	---
22	8.8	8.5	8.7	10.5	10.2	10.4	13.9	13.7	13.9	---	---	---
23	8.8	7.9	8.6	10.9	10.3	10.6	13.7	13.5	13.6	13.0	12.7	12.8
24	8.8	8.6	8.7	10.9	10.6	10.8	13.5	13.4	13.4	13.1	12.7	12.8
25	9.1	8.5	8.9	10.9	10.3	10.6	13.8	13.4	13.6	12.8	12.6	12.7
26	9.3	8.8	9.1	10.6	10.2	10.4	14.0	13.8	13.9	12.8	12.4	12.6
27	9.4	9.0	9.2	10.3	9.9	10.1	13.8	13.7	13.8	13.4	12.5	13.0
28	9.4	9.1	9.2	10.1	9.3	9.7	13.9	13.7	13.8	13.8	13.3	13.5
29	9.4	9.0	9.2	10.3	7.4	8.8	13.8	13.5	13.7	13.6	13.1	13.3
30	9.4	9.2	9.3	8.6	8.3	8.4	13.7	13.5	13.6	13.7	13.2	13.4
31	9.5	9.0	9.4	---	---	---	13.6	13.5	13.5	13.7	13.2	13.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.5	13.0	13.3	---	---	---	10.3	9.9	10.0	8.9	8.3	8.6
2	13.2	12.8	12.9	---	---	---	---	---	---	9.4	8.4	8.9
3	12.9	12.2	12.6	---	---	---	---	---	---	9.4	8.5	8.9
4	12.3	11.5	12.0	---	---	---	---	---	---	9.5	8.7	9.1
5	11.4	9.5	10.4	---	---	---	---	---	---	9.6	8.7	9.2
6	9.7	9.1	9.4	---	---	---	---	---	---	9.4	8.8	9.1
7	9.8	9.4	9.6	---	---	---	---	---	---	9.2	8.6	8.9
8	10.2	8.2	9.7	---	---	---	---	---	---	8.8	8.1	8.5
9	10.3	8.2	10.1	---	---	---	---	---	---	8.7	8.0	8.3
10	10.6	10.2	10.4	11.9	11.3	11.6	---	---	---	8.6	8.0	8.3
11	11.1	10.5	10.9	11.4	10.9	11.2	---	---	---	8.5	7.9	8.2
12	11.7	11.1	11.5	11.0	10.5	10.8	---	---	---	8.3	7.9	8.1
13	12.1	11.6	11.8	10.5	10.0	10.3	---	---	---	8.5	7.9	8.2
14	11.8	11.2	11.6	10.3	10.1	10.2	---	---	---	8.5	8.0	8.2
15	11.8	10.8	11.5	10.5	10.1	10.3	9.8	9.5	9.7	8.5	7.9	8.2
16	11.4	10.9	11.2	10.9	10.5	10.7	9.8	9.3	9.6	8.3	7.8	8.0
17	---	---	---	11.4	10.7	11.0	10.3	9.8	10.1	8.1	7.6	7.9
18	---	---	---	11.3	10.7	11.0	10.7	10.3	10.5	7.8	7.5	7.7
19	---	---	---	10.8	10.3	10.6	10.3	9.8	10.1	7.8	7.4	7.6
20	---	---	---	10.9	10.4	10.6	9.8	9.5	9.6	8.2	7.6	7.9
21	---	---	---	11.6	10.9	11.4	9.9	9.2	9.6	8.6	8.0	8.3
22	---	---	---	12.1	11.5	11.8	10.2	9.6	9.9	8.9	8.2	8.6
23	---	---	---	12.1	11.1	11.7	10.5	9.8	10.2	9.2	7.1	8.4
24	---	---	---	11.4	10.7	11.2	10.4	9.7	10.1	---	---	---
25	---	---	---	11.5	10.6	11.1	9.9	9.3	9.7	---	---	---
26	---	---	---	11.2	10.8	11.0	9.7	9.0	9.3	---	---	---
27	---	---	---	10.8	10.3	10.6	9.3	8.5	8.9	---	---	---
28	---	---	---	10.4	9.7	10.1	8.6	8.2	8.4	---	---	---
29	---	---	---	10.1	9.5	9.8	9.1	8.2	8.7	---	---	---
30	---	---	---	10.0	9.4	9.7	9.4	8.3	8.7	---	---	---
31	---	---	---	10.5	9.3	10.0	---	---	---	---	---	---

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1												
2												
3												
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TURBIDITY (JTU), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	85	60	40	15	95	20					---	---
2	75	30	40	15	70	40					---	---
3	35	10	40	15	60	40					---	---
4	40	9	45	20	60	25					---	---
5	35	10	50	15	---	---					---	---
6	45	20	55	25	---	---					---	---
7	50	25	60	15	---	---					---	---
8	25	9	50	10	---	---					---	---
9	35	2	70	15	---	---					---	---
10	35	20	85	35	---	---					100	80
11	40	10	85	25	---	---					100	85
12	30	10	45	6	---	---					110	85
13	40	10	40	5	---	---					110	100
14	35	---	35	8	---	---					140	100
15	50	20	40	7	---	---					170	120
16	30	20	---	---	---	---					140	120
17	25	20	---	---	---	---					130	70
18	20	10	---	---	---	---					110	95
19	25	1	75	20	---	---					260	100
20	40	---	80	40	---	---					1800	230
21	25	4	80	50	---	---					220	110
22	30	---	85	50	---	---					110	85
23	35	1	95	60	---	---					95	80
24	45	15	85	60	---	---					100	85
25	50	45	95	55	---	---					120	85
26	45	35	95	35	---	---					110	100
27	50	45	60	10	---	---					110	100
28	45	20	230	40	---	---					120	95
29	40	20	240	50	---	---					110	95
30	50	20	90	35	---	---					110	100
31	30	15	---	---	---	---					110	9

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

TURBIDITY, (JTU), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	35	25	6	2								
2	---	---	4	---								
3	---	---	2	---								
4	---	---	3	---								
5	---	---	6	---								
6	---	---	7	1								
7	---	---	10	5								
8	---	---	10	8								
9	---	---	15	8								
10	---	---	15	9								
11	---	---	15	10								
12	---	---	15	10								
13	---	---	20	1								
14	---	---	25	15								
15	35	25	25	15								
16	40	25	25	15								
17	40	25	20	15								
18	35	20	20	15								
19	35	20	20	10								
20	50	20	20	15								
21	30	20	15	10								
22	35	20	20	15								
23	35	10	210	15								
24	20	9	260	25								
25	30	9	50	10								
26	20	6	20	5								
27	20	---	10	7								
28	20	6	20	5								
29	25	9	---	---								
30	20	2	---	---								
31	---	---	---	---								

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	9050	371	9060	237	7	4.2	3170	39	333
2	4700	135	1720	238	6	3.8	2750	46	339
3	2580	57	395	275	7	5.0	2010	41	222
4	1250	35	118	464	13	19	1620	28	122
5	880	26	63	1230	31	109	1410	16	60
6	680	22	41	1190	27	82	1340	13	49
7	570	21	32	874	23	54	1130	11	34
8	470	19	24	742	20	39	1020	9	25
9	400	17	18	630	16	28	936	8	21
10	350	15	14	547	13	19	838	7	16
11	320	10	8.8	495	10	13	766	4	8.0
12	300	10	7.7	450	7	8.1	816	1	2.7
13	270	9	6.9	414	5	5.5	1170	5	15
14	250	10	6.7	390	4	4.7	1640	7	31
15	280	14	11	367	5	5.1	1520	3	14
16	260	23	16	367	20	20	1380	2	8.7
17	300	25	20	556	11	16	1220	3	10
18	280	24	18	850	8	17	1070	3	8.6
19	260	23	16	738	6	12	886	2	5.0
20	240	20	13	659	5	9.5	795	3	5.8
21	230	16	10	597	5	8.3	767	2	4.8
22	220	16	9.5	805	9	25	643	5	9.0
23	400	21	23	1610	31	133	733	7	13
24	340	9	8.3	1370	21	77	724	2	3.9
25	368	11	11	1110	15	46	669	2	3.0
26	367	13	13	924	11	27	617	4	6.1
27	321	12	10	1010	22	66	580	2	2.7
28	287	10	8.1	9290	316	14900	560	2	3.2
29	262	9	6.5	15500	418	20500	540	2	2.5
30	255	8	5.7	4920	59	774	520	1	.94
31	243	7	4.7	---	---	---	500	1	1.2
TOTAL	26983	---	11718.9	48799	---	37030.2	34340	---	1380.14
		JANUARY			FEBRUARY			MARCH	
1	627	4	8.3	605	1	1.6	1360	29	108
2	713	3	6.8	618	1	1.9	1270	16	53
3	697	4	7.4	672	1	1.9	1220	7	22
4	689	2	2.8	766	1	2.0	1140	4	11
5	647	2	3.2	1740	26	193	1040	3	9.5
6	587	3	5.2	3840	108	1120	981	4	10
7	558	2	3.4	4010	58	629	919	3	7.8
8	550	2	3.2	3230	29	257	819	2	4.5
9	510	2	2.2	2340	13	87	735	2	4.2
10	490	2	2.7	1820	6	30	706	2	3.2
11	470	3	3.4	1600	4	19	715	2	3.2
12	454	2	2.5	1290	5	18	755	2	4.4
13	452	2	2.1	1060	7	21	907	2	5.6
14	440	2	2.8	1020	5	15	1580	11	46
15	410	1	1.2	1070	4	10	2270	27	177
16	400	1	1.2	1080	3	9.3	2580	30	210
17	380	1	1.5	8360	134	5860	2010	10	56
18	360	2	2.0	24000	353	25100	1620	4	16
19	495	9	15	8370	35	810	2330	66	624
20	958	34	88	4220	16	185	2930	105	902
21	839	24	55	3050	11	93	1840	6	28
22	755	10	19	2240	11	63	1420	3	12
23	713	6	12	1800	10	51	1220	2	7.3
24	652	3	5.6	1540	10	43	1080	2	6.7
25	628	1	2.2	1480	11	44	952	2	6.3
26	687	2	3.0	1290	10	33	849	2	5.7
27	760	2	4.0	1330	29	110	798	2	4.9
28	720	2	3.2	1530	44	183	747	2	4.0
29	710	2	3.6	---	---	---	678	2	3.2
30	680	2	3.4	---	---	---	631	2	2.7
31	621	2	2.6	---	---	---	593	1	2.3
TOTAL	18652	---	278.5	85971	---	34990.7	38695	---	2360.5

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			MAY			JUNE	
1	558	2	2.5	438	3	3.7	1190	3	9.7
2	528	2	2.7	403	4	4.3	1760	22	146
3	503	2	3.4	364	4	3.8	1350	17	61
4	473	3	3.9	330	3	2.9	1090	19	57
5	436	3	3.5	305	3	2.2	1080	15	43
6	416	2	2.7	290	3	2.3	1050	15	43
7	415	2	1.8	277	3	2.5	924	12	30
8	484	5	6.5	291	3	2.6	746	8	16
9	965	6	17	306	3	2.7	884	14	59
10	854	5	12	278	3	2.4	3580	72	718
11	726	7	14	242	3	1.9	2940	64	517
12	656	8	13	221	3	1.7	1790	26	128
13	599	6	9.3	230	3	1.7	1150	17	53
14	554	4	6.5	249	3	1.7	823	16	35
15	528	3	4.1	242	3	1.8	615	15	24
16	496	4	5.3	215	2	1.4	494	13	18
17	444	4	5.3	186	3	1.3	394	11	12
18	425	4	4.4	187	2	.97	341	9	8.6
19	400	4	3.9	169	3	1.5	287	7	5.6
20	375	7	6.9	221	5	3.1	239	6	3.8
21	496	19	26	233	5	3.1	211	6	3.3
22	683	16	29	212	8	4.4	188	6	3.0
23	633	12	21	4080	101	2980	168	6	2.7
24	554	11	17	12900	156	7550	149	5	2.0
25	509	10	14	10300	42	1090	132	5	1.6
26	492	9	12	6000	51	833	117	5	1.4
27	461	8	10	5590	56	839	101	4	1.1
28	439	7	8.6	5810	26	408	94	4	.96
29	528	8	12	3940	9	98	113	6	2.1
30	534	10	14	2570	6	40	163	5	2.5
31	---	---	---	1630	3	13	---	---	---
TOTAL	16164	---	292.3	58689	---	13904.97	24163	---	2008.36
		JULY			AUGUST			SEPTEMBER	
1	130	4	1.4	67	4	.67	365	25	25
2	164	4	1.7	55	3	.51	1570	163	1500
3	354	6	6.2	48	3	.42	4060	240	3150
4	369	4	4.2	42	3	.36	1220	81	262
5	217	2	1.2	36	3	.31	755	65	133
6	153	2	.67	34	3	.28	513	52	72
7	123	1	.36	33	3	.27	359	40	38
8	104	1	.38	37	5	.49	276	31	23
9	91	1	.36	45	8	.96	214	24	14
10	82	1	.29	46	6	.80	165	20	8.7
11	90	2	.44	406	24	62	140	17	6.2
12	161	7	2.9	960	17	46	185	19	10
13	159	4	1.5	437	8	10	397	31	34
14	202	7	3.9	269	4	3.3	286	22	17
15	287	15	12	186	4	1.9	192	17	8.7
16	256	7	5.1	158	5	2.3	197	16	8.8
17	268	9	6.7	199	10	5.6	251	18	12
18	247	11	7.6	154	7	2.9	236	15	9.5
19	187	11	5.5	129	5	1.8	184	13	6.6
20	130	9	3.3	113	4	1.4	190	14	7.0
21	105	9	2.5	154	12	6.6	235	16	10
22	87	8	1.9	169	11	5.3	227	15	9.1
23	86	8	1.8	119	7	2.4	190	11	5.5
24	79	7	1.5	100	5	1.5	298	32	35
25	73	6	1.2	89	5	1.1	277	23	18
26	63	5	.90	83	5	1.0	180	10	5.1
27	67	5	.95	105	8	2.3	144	8	3.0
28	64	4	.68	168	11	5.0	115	6	1.8
29	55	3	.38	324	14	12	97	4	1.1
30	52	2	.29	287	12	9.1	93	5	1.2
31	72	4	.75	206	11	6.2	---	---	---
TOTAL	4577	---	78.55	5258	---	194.77	13611	---	5435.3
YEAR	375902		109673.19						

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY

LOCATION.--Lat 36°37'37", long 84°32'00", Scott County, Hydrologic Unit 05130104, on left right bank 1,000 ft below confluence of Bear Creek, 400 ft upstream from Salt Branch, 5.5 mi southwest of Stearns, and at mile 49.6. Records include flow of Bear Creek.

DRAINAGE AREA.--954 mi^2, includes that of Bear Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1942 to current year.

REVISED RECORDS.--WSP 1113: 1946(M). WSP 1436: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 763.83 ft above National Geodetic Vertical Datum of 1929; prior to Oct. 1, 1980 at site 1.000 ft upstream at datum 0.98 ft higher.

REMARKS.--Estimated daily discharges: Dec. 19, 20, 25-31, Jan. 9-18, Jan. 28 to Feb. 1. Records good except for periods of estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--44 years, 1,766 ft^3/s, 25.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 93,200 ft^3/s, May 28, 1973, gage height, 46.29 ft present datum, from floodmarks; minimum discharge, 11 ft^3/s, Oct. 4, 1948, Sept. 17, 18, 19, 20, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1929, reached a stage of 52.9 ft from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 22,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	0600	23,900	21.52	Feb. 18	0900	*32,700	*25.20

Minimum daily discharge, 41 ft^3/s, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5640	229	3630	650	650	1620	615	478	1440	157	71	404
2	8310	229	2990	1060	637	1480	576	425	1540	140	78	734
3	3030	243	2340	593	722	1420	552	379	1670	188	66	4730
4	1970	394	1900	592	840	1320	526	350	1160	375	57	1580
5	1390	996	1620	566	1660	1170	498	322	1100	285	50	855
6	942	1320	1470	559	4320	1110	471	304	1090	192	45	637
7	709	963	1260	549	4680	1040	462	294	1550	146	41	464
8	567	781	1080	489	3880	931	472	290	1100	121	52	344
9	465	670	971	460	2820	848	797	309	962	106	54	256
10	400	572	877	440	2210	800	967	288	3060	96	54	208
11	355	505	800	430	1910	808	786	255	3470	103	69	175
12	321	467	805	425	1560	845	710	221	2160	106	914	165
13	289	436	1100	420	1240	1010	645	228	1390	172	504	327
14	271	409	1680	410	1150	1730	587	244	956	170	288	393
15	322	392	1710	400	1180	2610	549	246	717	221	195	267
16	307	387	1520	390	1180	3190	514	229	568	271	143	224
17	325	486	1350	380	7280	2550	479	197	458	240	168	265
18	284	805	1170	370	28200	2070	447	172	369	237	182	282
19	253	781	960	460	11200	2020	431	172	302	215	142	243
20	235	693	820	841	5480	3590	408	217	259	164	120	221
21	232	617	821	902	3610	2220	481	224	226	129	107	264
22	223	661	709	783	2690	1700	689	225	198	106	148	285
23	355	1490	730	742	2180	1410	696	1110	177	91	149	248
24	378	1510	759	691	1850	1220	606	14900	156	87	111	240
25	344	1210	690	652	1720	1070	542	11700	138	80	95	393
26	380	1010	550	684	1520	950	514	7150	123	73	85	263
27	333	959	460	750	1530	885	489	6560	112	66	109	206
28	293	5720	453	740	1760	835	465	7370	104	64	149	169
29	261	19000	440	710	---	761	514	5030	103	66	193	145
30	248	6500	425	700	---	701	543	3130	138	62	294	131
31	241	---	420	670	---	652	---	2080	---	58	257	---
TOTAL	29673	50435	36510	18508	99659	44566	17031	65099	26796	4587	4990	15118
MEAN	957	1681	1178	597	3559	1438	568	2100	893	148	161	504
MAX	8310	19000	3630	1060	28200	3590	967	14900	3470	375	914	4730
MIN	223	229	420	370	637	652	408	172	103	58	41	131
CFSM	1.00	1.76	1.23	.63	3.73	1.51	.60	2.20	.94	.16	.17	.53
IN	1.16	1.97	1.42	.72	3.89	1.74	.66	2.54	1.04	.18	.19	.59

CAL YR 1985	TOTAL	468142	MEAN	1283	MAX	19000	MIN	88	CFSM 1.34	IN	18.25
WTR YR 1986	TOTAL	412972	MEAN	1131	MAX	28200	MIN	41	CFSM 1.19	IN	16.10

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-72, 1979 to current year.
PERIOD OF DAILY RECORD.--
  SPECIFIC CONDUCTANCE: May 1980 to current year.
  pH: May 1980 to current year.
  WATER TEMPERATURE: May 1980 to current year.
  DISSOLVED OXYGEN: May 1980 to current year.
  TURBIDITY: May 1980 to current year.
  SUSPENDED SEDIMENT DISCHARGE: May 1980 to current year.
INSTRUMENTATION.--Five parameter water-quality monitor and sediment pumping sampler since May 1980.
REMARKS.--Miscellaneous samples prior to 1979. Interruptions in daily record were due to malfunctions of the instruments.
EXTREMES FOR PERIOD OF RECORD.--
  SPECIFIC CONDUCTANCE: Maximum, 434 microsiemens, July 17, 1985; minimum, 40 microsiemens, May 7, 1984.
  pH: Maximum, 7.9 units, June 13, 1984, Sept. 17-21, 1985; minimum, 5.2 units, May 19, Nov. 24, 1980.
  WATER TEMPERATURE: Maximum, 33.0CC, July 17, 1980; minimum, 0.0CC, Dec. 25-27, 1983.
  DISSOLVED OXYGEN: Maximum, 14.3 mg/L, Dec. 21, 1981, Jan. 1, 2, 1984; minimum, 4.5 mg/L, May 22, 1980.
  TURBIDITY: Maximum, >1,000 JTU, Aug. 1, 1982; minimum, 0 JTU, many days.
  SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,980 mg/L, Aug. 9, 1981; minimum daily mean, 1 mg/L, on several days in 1983-84.
  SEDIMENT LOADS: Maximum daily, 200,000 tons, Sept. 2, 1982; minimum daily, 0.25 tons, Aug. 6, 1986.
EXTREMES FOR CURRENT YEAR.--
  SPECIFIC CONDUCTANCE: Maximum, 338 microsiemens, Aug. 16; minimum, 61 microsiemens, May 28.
  pH: Maximum, 7.7 units, Aug. 15; minimum, 5.8 units, Oct. 1.
  WATER TEMPERATURE: Maximum, 32.0CC, July 24; minimum, 0.5CC, on several days during winter months.
  DISSOLVED OXYGEN: Maximum, 13.8 mg/L, Jan. 9; minimum, 6.3 mg/L, May 23, July 8.
  TURBIDITY: Maximum, 850 JTU, Oct. 1; minimum, 0 JTU, several days during the year.
  SEDIMENT CONCENTRATIONS: Maximum daily mean, 683 mg/L, Oct. 1; minimum daily mean, 2 mg/L, on several days during the year.
  SEDIMENT LOADS: Maximum daily, 35,700 tons, Nov. 29; minimum daily, 0.25 ton, Aug. 6.

WATER QUALITY DATA WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (F^3/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1985						
04...	1230	1890	15.5	80	64	327
NOV						
14...	1405	418	13.0	138	12	14
DEC						
20...	1200	813	2.0	120	1	2.2
FEB 1986						
04...	1400	892	3.5	122	13	31
MAR						
19...	1450	1770	11.5	98	2	9.1
APR						
28...	1135	430	18.0	154	2	2.1
JUN						
1[illegible]...	1110	1350	22.0	97	28	102
JUL						
22...	1430	104	31.0	260	2	0.48
SEP						
10...	1205	213	21.5	149	10	5.8

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	228	66	137	254	242	249	92	86	91	138	132	135
2	74	64	69	260	254	257	98	92	95	142	138	141
3	76	72	74	260	240	252	102	98	101	144	142	143
4	88	80	83	238	194	217	106	102	104	166	144	155
5	114	88	100	194	160	174	110	106	108	176	168	173
6	118	114	116	210	166	185	112	108	110	176	174	176
7	122	114	117	238	212	230	114	112	113	180	178	178
8	132	122	127	236	212	227	116	100	115	180	170	175
9	132	128	131	210	178	194	118	102	115	170	164	167
10	128	122	125	178	160	167	120	102	118	164	156	160
11	122	116	119	160	148	154	124	120	122	156	150	152
12	118	112	115	148	142	144	126	124	125	152	150	151
13	114	110	112	142	138	140	128	124	126	152	146	150
14	112	110	111	138	138	138	136	124	129	146	140	141
15	116	110	112	138	136	138	146	136	142	144	140	142
16	110	108	110	138	134	136	148	146	147	148	144	147
17	112	108	111	138	126	133	146	120	139	148	148	148
18	116	112	114	136	128	131	134	120	129	150	148	149
19	118	116	118	144	136	140	126	122	123	150	144	147
20	120	118	119	178	144	162	122	116	120	144	140	142
21	122	120	121	180	178	179	122	118	120	148	144	146
22	126	122	124	178	172	175	122	118	120	174	146	162
23	126	122	125	170	150	166	122	118	120	176	172	173
24	130	124	126	182	148	168	124	118	122	172	168	170
25	134	130	133	182	162	175	124	122	122	168	164	167
26	136	134	135	160	142	150	126	122	124	166	154	161
27	168	138	150	142	128	135	130	126	128	152	142	146
28	214	172	195	128	106	121	132	130	130	142	140	141
29	222	216	220	94	76	83	136	130	134	142	138	140
30	224	220	222	86	82	85	136	132	135	140	138	139
31	242	224	232	---	---	---	134	130	132	138	134	137

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	136	132	134	130	120	126	134	130	132	166	164	164
2	138	134	135	130	128	128	134	132	132	164	162	164
3	136	128	132	130	126	128	136	132	134	160	156	158
4	126	122	124	130	122	126	138	134	137	160	156	158
5	122	108	116	122	120	121	140	138	139	160	158	158
6	130	108	114	122	118	120	142	140	141	160	156	160
7	106	92	96	120	118	120	144	142	143	160	158	159
8	96	92	94	122	120	120	146	144	146	158	154	156
9	96	94	94	126	122	124	154	146	150	156	154	156
10	96	94	94	126	120	126	168	156	162	158	156	156
11	98	94	96	124	120	123	188	170	180	162	158	160
12	102	98	100	124	122	123	188	186	186	164	160	162
13	104	98	102	124	120	122	184	182	183	165	162	163
14	104	98	102	126	116	121	182	174	178	165	162	164
15	104	102	104	118	114	116	176	168	172	163	160	161
16	110	78	96	120	114	118	166	154	160	161	160	160
17	86	70	80	114	102	107	154	148	151	161	160	160
18	76	70	72	102	98	101	148	146	148	161	159	160
19	82	76	78	100	98	98	150	146	148	160	157	159
20	86	82	84	160	100	134	150	146	148	159	155	157
21	92	84	88	150	116	131	150	146	147	157	155	156
22	96	90	94	118	114	116	148	144	145	162	158	160
23	102	96	99	116	114	115	154	146	150	163	145	159
24	106	102	103	116	114	115	156	154	155	129	80	96
25	108	104	107	118	116	116	158	156	158	81	64	73
26	116	108	112	120	118	118	158	154	156	78	65	72
27	118	114	116	120	118	119	156	152	154	73	64	69
28	120	114	117	122	118	120	158	154	156	70	61	67
29	---	---	---	126	120	123	160	156	158	77	68	73
30	---	---	---	130	124	125	164	158	160	82	77	79
31	---	---	---	132	130	130	---	---	---	87	82	84

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	92	87	90	139	136	138	279	274	277	170	150	165
2	101	92	95	141	138	139	274	269	271	205	160	171
3	169	102	128	143	139	141	269	266	267	208	149	174
4	171	158	163	151	144	147	266	262	263	147	129	135
5	158	137	149	159	151	155	263	260	261	130	129	130
6	147	137	142	173	160	166	260	257	259	134	129	131
7	146	88	113	188	174	181	259	245	256	144	134	139
8	106	93	102	201	189	195	254	244	250	148	144	146
9	109	99	103	209	202	206	253	250	252	149	148	148
10	124	106	114	212	210	211	251	247	249	149	148	149
11	121	76	91	212	211	212	250	240	244	152	149	150
12	92	86	89	213	211	212	244	232	237	156	151	153
13	99	94	98	215	210	213	251	230	236	157	155	156
14	98	96	97	220	216	218	314	254	286	157	155	156
15	105	98	102	226	220	224	335	315	327	160	155	157
16	113	105	110	227	222	225	338	336	337	165	160	163
17	115	113	114	223	210	216	337	329	334	166	160	163
18	120	114	118	211	207	209	328	309	318	172	160	165
19	121	120	120	234	211	222	308	294	301	182	172	178
20	123	120	122	254	236	246	294	282	288	183	181	182
21	125	122	124	266	255	260	282	270	276	182	179	181
22	126	124	125	268	266	267	270	251	262	179	171	175
23	128	126	127	275	270	272	250	234	241	171	168	169
24	130	127	129	279	275	277	233	222	228	173	170	171
25	131	129	130	283	279	281	222	213	217	174	171	172
26	132	130	131	286	283	285	213	206	210	174	170	172
27	134	131	132	289	286	288	205	194	200	177	173	176
28	135	133	134	289	287	288	211	185	196	180	177	178
29	136	134	135	287	286	287	185	168	177	182	179	180
30	137	135	136	286	284	285	167	151	157	185	180	182
31	---	---	---	284	278	281	162	146	150	---	---	---

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.6	5.8	7.5	7.4	6.9	6.8	7.2	7.2	7.3	7.2	7.1	7.1
2	7.0	6.9	7.5	7.4	7.0	6.8	7.3	7.2	7.3	7.2	7.1	7.1
3	7.0	6.9	7.5	7.4	7.0	7.0	7.3	7.2	7.3	7.2	7.1	7.1
4	7.0	6.8	7.4	7.2	7.0	7.0	7.3	7.3	7.2	7.1	7.1	7.1
5	7.0	6.9	7.3	7.2	7.1	7.0	7.4	7.3	7.1	7.0	7.1	7.1
6	7.1	7.0	7.4	7.3	7.1	7.0	7.4	7.3	7.1	7.0	7.1	7.0
7	7.2	7.1	7.5	7.4	7.1	7.1	7.4	7.3	7.0	6.9	7.1	7.1
8	7.2	7.1	7.5	7.4	7.1	7.1	7.4	7.4	7.0	6.9	7.1	7.1
9	7.2	7.1	7.4	7.4	7.1	7.1	7.4	7.3	6.9	6.9	7.1	7.1
10	7.2	7.1	7.4	7.3	7.1	7.1	7.3	7.3	7.0	6.9	7.1	7.1
11	7.2	7.1	7.4	7.3	7.1	7.1	7.3	7.3	7.0	7.0	7.1	7.0
12	7.2	7.1	7.3	7.2	7.1	7.1	7.3	7.3	7.1	7.0	7.1	7.1
13	7.1	7.0	7.3	7.2	7.1	7.0	7.3	7.3	7.1	7.0	7.1	7.0
14	7.1	7.0	7.3	7.2	7.2	7.0	7.3	7.3	7.1	7.0	7.1	7.0
15	7.0	6.9	7.3	7.2	7.3	7.2	7.3	7.3	7.1	7.1	7.0	7.0
16	6.9	6.9	7.4	7.2	7.3	7.2	7.3	7.3	7.1	6.6	7.1	7.0
17	7.0	6.9	7.3	7.2	7.3	7.2	7.3	7.3	6.9	6.5	7.0	7.0
18	7.0	6.9	7.3	7.2	7.2	7.2	7.3	7.3	6.6	6.5	7.0	7.0
19	7.0	7.0	7.3	7.2	7.2	7.2	7.3	7.2	6.7	6.5	7.0	7.0
20	7.1	7.0	7.4	7.3	7.2	7.2	7.3	7.2	6.7	6.6	7.3	7.0
21	7.0	7.0	7.4	7.3	7.2	7.2	7.3	7.3	6.8	6.7	7.3	7.1
22	7.0	7.0	7.4	7.3	7.2	7.2	7.4	7.3	6.9	6.8	7.2	7.1
23	7.1	7.0	7.3	7.3	7.2	7.2	7.4	7.3	6.9	6.9	7.2	7.1
24	7.1	7.0	7.4	7.3	7.2	7.2	7.4	7.3	6.9	6.9	7.2	7.1
25	7.1	7.0	7.4	7.3	7.2	7.2	7.4	7.3	7.0	6.9	7.2	7.1
26	7.2	7.1	7.3	7.2	7.2	7.2	7.3	7.3	7.0	7.0	7.2	7.1
27	7.2	7.1	7.2	7.2	7.2	7.2	7.3	7.3	7.0	7.0	7.2	7.1
28	7.3	7.2	7.2	6.8	7.2	7.2	7.3	7.3	7.1	7.0	7.2	7.1
29	7.4	7.3	6.9	6.6	7.2	7.2	7.3	7.3	--	--	7.2	7.1
30	7.4	7.3	6.9	6.7	7.2	7.2	7.3	7.3	--	--	7.2	7.1
31	7.5	7.3	--	--	7.2	7.2	7.3	7.3	--	--	7.2	7.1

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.2	7.1	7.3	7.2	6.9	6.8	7.2	7.0	7.4	7.3	7.0	6.9
2	7.2	7.1	7.3	7.2	7.0	6.9	7.2	7.0	7.5	7.3	7.1	6.5
3	7.2	7.1	7.4	7.2	7.1	6.9	7.2	7.0	7.5	7.3	7.2	6.9
4	7.2	7.1	7.4	7.3	7.1	7.0	7.2	7.1	7.5	7.3	6.9	6.9
5	7.2	7.1	7.4	7.3	7.0	7.0	7.3	7.1	7.5	7.3	7.0	6.9
6	7.2	7.1	7.3	7.2	7.0	7.0	7.3	7.1	7.5	7.3	7.0	7.0
7	7.3	7.1	7.3	7.2	7.0	6.7	7.3	7.1	7.5	7.3	7.1	7.0
8	7.3	7.1	7.2	7.1	6.9	6.8	7.4	7.2	7.5	7.3	7.2	7.1
9	7.3	7.2	7.3	7.1	6.9	6.8	7.4	7.2	7.5	7.3	7.3	7.1
10	7.4	7.2	7.3	7.1	7.0	6.9	7.3	7.2	7.4	7.3	7.3	7.1
11	7.4	7.3	7.3	7.1	6.9	6.6	7.4	7.2	7.3	7.1	7.3	7.1
12	7.4	7.3	7.2	7.1	6.8	6.7	7.4	7.2	7.2	7.2	7.3	7.1
13	7.4	7.3	7.3	7.1	6.9	6.8	7.3	7.2	7.4	7.2	7.3	7.1
14	7.4	7.3	7.3	7.1	6.9	6.8	7.3	7.2	7.5	7.3	7.3	7.1
15	7.4	7.3	7.3	7.1	7.0	6.9	7.4	7.2	7.7	7.4	7.3	7.1
16	7.4	7.3	7.3	7.2	7.2	6.9	7.4	7.2	7.5	7.4	7.3	7.1
17	7.3	7.3	7.3	7.1	7.2	6.9	7.4	7.2	7.5	7.4	7.3	7.1
18	7.4	7.3	7.2	7.1	7.3	7.0	7.4	7.2	7.5	7.4	7.3	7.2
19	7.4	7.3	7.2	7.1	7.3	7.0	7.3	7.2	7.5	7.3	7.3	7.2
20	7.3	7.3	7.2	7.1	7.3	7.0	7.4	7.2	7.4	7.3	7.4	7.2
21	7.3	7.1	7.2	7.1	7.3	7.0	7.4	7.2	7.4	7.3	7.3	7.1
22	7.3	7.2	7.3	7.2	7.3	7.0	7.5	7.3	7.4	7.2	7.3	7.1
23	7.3	7.2	7.3	6.8	7.3	7.0	7.5	7.3	7.3	7.2	7.3	7.1
24	7.4	7.3	6.8	6.6	7.2	7.0	7.5	7.3	7.4	7.2	7.3	7.1
25	7.4	7.3	6.7	6.6	7.2	7.0	7.5	7.3	7.4	7.2	7.3	7.1
26	7.3	7.2	6.6	6.5	7.3	7.0	7.5	7.3	7.4	7.2	7.3	7.1
27	7.3	7.2	6.6	6.5	7.3	7.0	7.5	7.3	7.3	7.2	7.3	7.1
28	7.3	7.2	6.6	6.5	7.3	7.0	7.5	7.3	7.2	6.9	7.3	7.1
29	7.3	7.2	6.7	6.6	7.3	7.0	7.5	7.3	7.2	7.1	7.3	7.1
30	7.4	7.2	6.8	6.7	7.3	7.0	7.5	7.3	7.3	7.1	7.3	7.2
31	--	--	6.8	6.8	--	--	7.4	7.3	7.2	6.9	--	--

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	19.5	15.5	17.0	17.5	17.0	17.0	15.0	14.0	14.0	1.0	1.0	1.0
2	15.5	14.5	15.0	17.5	17.0	17.0	13.5	11.5	12.5	1.5	.5	1.0
3	14.5	14.5	14.5	17.0	16.0	16.5	11.5	9.0	10.0	1.5	1.0	1.5
4	15.5	15.5	15.5	16.0	14.5	15.5	9.0	8.0	8.0	2.0	1.5	1.5
5	16.0	15.5	15.5	14.5	13.5	14.0	8.0	7.0	7.5	2.0	1.5	2.0
6	16.0	15.0	15.5	13.5	12.5	13.0	7.0	6.5	7.0	1.5	1.5	1.5
7	15.5	14.5	15.0	12.5	11.5	12.0	6.5	6.0	6.0	2.0	1.5	1.5
8	15.5	14.5	15.0	11.5	11.0	11.0	6.0	6.0	6.0	1.5	1.0	1.0
9	15.5	14.5	15.0	11.0	10.5	10.5	6.5	6.0	6.0	1.0	.5	1.0
10	16.0	15.0	15.5	11.0	10.5	11.0	6.5	6.0	6.5	1.0	.5	1.0
11	17.0	15.5	16.0	11.5	11.0	11.5	7.5	6.5	7.0	1.0	.5	1.0
12	17.5	16.5	17.0	12.0	11.5	11.5	7.5	7.5	7.5	1.5	1.0	1.0
13	18.0	17.0	17.5	13.0	12.0	12.5	8.0	7.5	7.5	1.5	1.0	1.0
14	18.5	17.5	18.0	13.5	12.5	13.0	7.5	6.5	7.0	1.5	.5	1.0
15	18.5	18.0	18.0	14.0	13.0	13.5	6.5	5.0	6.0	1.0	.5	1.0
16	19.0	18.0	18.5	14.5	14.0	14.0	5.0	4.5	5.0	1.5	1.0	1.0
17	18.5	17.5	18.0	14.0	14.0	14.0	4.5	4.0	4.0	2.0	1.5	1.5
18	19.0	18.0	18.5	14.5	14.0	14.0	4.0	3.0	3.5	2.5	2.0	2.0
19	19.5	18.5	19.0	15.0	14.5	14.5	3.0	2.0	2.5	2.5	2.5	2.5
20	20.0	19.0	19.5	15.0	14.5	15.0	2.5	2.0	2.0	2.5	2.5	2.5
21	20.0	19.5	20.0	14.5	13.5	14.0	2.0	1.5	1.5	3.0	2.5	2.5
22	20.0	19.5	19.5	13.5	13.0	13.5	1.5	1.0	1.0	3.5	3.0	3.5
23	19.5	19.5	19.5	13.0	12.0	12.5	2.0	1.5	1.5	4.0	3.5	3.5
24	19.5	19.5	19.5	12.0	12.0	12.0	1.5	1.5	1.5	4.0	3.0	3.5
25	20.0	19.0	19.5	12.0	12.0	12.0	1.5	.5	1.0	4.0	4.0	4.0
26	19.0	18.5	19.0	13.0	12.0	12.5	.5	.5	.5	4.0	3.5	4.0
27	19.0	18.5	19.0	13.5	13.0	13.5	1.0	.5	1.0	3.5	1.5	2.5
28	19.0	18.5	18.5	15.5	13.5	14.0	1.0	.5	1.0	1.5	1.0	1.0
29	18.5	17.5	18.0	17.0	14.5	15.5	1.0	.5	1.0	1.5	1.0	1.0
30	17.5	17.0	17.5	15.0	14.5	14.5	1.0	.5	.5	1.5	1.0	1.5
31	17.5	17.0	17.5	---	---	---	1.0	.5	1.0	2.0	1.0	1.5

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03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	2.0	2.0	6.0	5.0	5.5	15.0	13.5	14.5	19.5	19.0	19.0
2	3.0	2.5	3.0	5.0	4.5	5.0	16.0	14.5	15.5	20.0	18.5	19.0
3	4.0	3.0	3.5	5.0	4.5	4.5	16.0	15.0	15.5	19.5	18.0	18.5
4	5.5	4.0	5.0	4.5	4.5	4.5	16.5	15.0	16.0	19.5	17.0	18.5
5	7.5	5.5	6.5	5.0	4.0	4.5	17.0	15.5	16.5	20.0	17.5	18.5
6	10.0	7.5	9.0	6.0	5.0	5.5	18.0	16.5	17.0	20.5	18.5	19.5
7	9.5	9.0	9.0	5.5	5.0	5.5	19.0	17.0	18.0	21.5	19.5	20.5
8	8.5	8.0	8.5	6.0	4.5	5.5	19.0	18.0	18.0	22.5	20.5	21.5
9	8.0	7.0	7.5	7.0	5.5	6.0	18.0	16.5	17.0	23.0	20.5	22.0
10	7.0	5.5	6.0	8.0	6.5	7.5	17.0	15.5	16.0	23.0	21.0	22.0
11	5.5	4.0	4.5	9.0	8.0	8.5	16.5	15.0	16.0	23.0	21.5	22.5
12	4.0	3.0	3.5	10.0	8.5	9.5	16.5	14.5	15.5	22.5	22.0	22.5
13	3.0	2.0	2.5	11.5	10.0	10.5	16.5	14.5	15.5	23.5	22.0	22.5
14	2.0	1.5	2.0	12.5	11.5	12.0	16.0	15.0	15.5	24.0	22.0	23.0
15	2.5	1.5	2.0	12.5	12.0	12.5	16.5	15.5	16.0	24.0	22.5	23.0
16	4.5	2.5	3.0	12.0	11.5	11.5	15.5	14.5	15.0	25.0	22.5	24.0
17	11.5	5.5	9.0	11.5	10.5	11.0	14.5	13.5	14.0	25.0	23.0	24.5
18	11.0	9.0	9.5	11.0	10.5	11.0	15.5	13.5	14.0	24.5	24.0	24.0
19	11.5	9.0	9.5	11.5	11.0	11.5	16.0	14.0	15.0	23.5	23.0	23.5
20	9.5	9.5	9.5	12.0	11.0	11.5	15.5	15.0	15.5	22.5	21.5	22.0
21	9.5	9.5	9.5	11.0	9.5	10.5	15.0	14.5	15.0	21.5	21.0	21.5
22	9.5	8.5	9.0	9.5	8.5	9.0	15.0	14.0	14.5	22.0	20.0	21.0
23	8.5	8.0	8.0	8.5	8.0	8.0	15.0	13.0	14.0	21.0	18.5	20.0
24	8.0	7.5	7.5	9.0	8.0	8.5	15.5	13.0	14.5	17.5	15.0	15.5
25	7.5	7.0	7.0	10.0	8.0	9.0	16.0	14.0	15.0	16.0	15.5	16.0
26	7.0	6.5	7.0	10.5	9.5	10.0	17.5	15.0	16.5	16.0	16.0	16.0
27	7.0	6.5	7.0	12.0	10.5	11.5	18.5	16.5	17.5	16.5	16.0	16.0
28	6.5	6.0	6.0	13.0	11.0	12.0	18.0	17.5	17.5	17.0	16.5	16.5
29	---	---	---	13.5	11.5	12.5	19.0	17.5	18.0	17.5	17.0	17.0
30	---	---	---	14.5	12.5	13.5	20.0	17.5	19.0	19.0	17.5	18.0
31	---	---	---	15.0	13.0	14.0	---	---	---	20.0	18.5	19.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.5	19.5	20.0	29.5	28.0	28.5	29.0	26.5	28.0	22.5	22.0	22.5
2	21.5	20.5	20.5	29.0	28.0	28.0	29.5	27.0	28.0	22.5	21.5	22.0
3	22.0	21.0	21.5	28.5	27.0	27.5	29.5	27.0	28.0	21.5	20.5	20.5
4	22.0	21.0	21.5	28.0	26.5	27.5	29.0	26.0	27.5	20.5	20.0	20.5
5	21.5	21.0	21.0	28.5	26.5	27.5	28.5	26.0	27.5	21.5	20.5	21.0
6	22.0	21.0	21.5	28.5	26.5	27.5	28.0	26.0	27.0	22.5	21.0	21.5
7	21.5	21.0	21.5	29.5	27.0	28.0	28.5	26.0	27.0	22.0	21.0	21.5
8	22.5	21.0	21.5	30.5	27.5	29.0	28.5	26.5	27.5	22.5	21.5	22.0
9	22.5	21.5	22.0	30.5	28.5	29.5	28.5	26.5	27.5	22.5	21.0	21.5
10	23.5	22.5	23.0	29.5	28.5	29.0	29.0	26.5	27.5	23.0	21.5	22.5
11	22.0	21.0	21.5	30.5	27.5	29.0	28.0	26.5	27.0	23.0	22.0	22.5
12	22.5	21.0	21.5	30.5	28.5	29.0	26.5	26.0	26.5	24.0	22.5	23.0
13	23.0	22.0	22.5	29.5	28.5	29.0	27.0	26.0	26.5	23.5	22.0	23.0
14	23.5	22.0	23.0	29.5	28.0	28.5	27.0	26.0	26.5	23.5	22.0	23.0
15	24.5	23.0	23.5	29.5	27.5	28.5	28.0	26.0	27.0	23.5	22.5	23.0
16	25.5	23.0	24.0	29.5	28.0	28.5	27.5	26.5	27.0	24.0	22.5	23.0
17	25.5	24.0	24.5	30.0	28.0	29.0	27.5	26.0	26.5	24.0	22.5	23.5
18	26.0	24.0	24.5	30.5	28.5	29.5	27.5	26.5	26.5	23.5	23.0	23.0
19	26.5	24.0	25.0	30.5	28.5	29.5	27.5	26.0	26.5	23.0	22.5	23.0
20	27.0	24.5	25.5	31.0	29.0	30.0	28.0	26.0	26.5	23.5	22.5	23.0
21	27.5	25.5	26.5	31.5	29.0	30.0	27.5	26.0	26.5	24.5	23.0	23.5
22	28.0	25.5	26.5	31.5	29.0	30.5	27.5	26.0	27.0	24.5	23.0	24.0
23	28.5	26.5	27.5	31.5	29.0	30.5	28.0	26.5	27.0	24.5	23.5	24.5
24	29.0	27.0	28.0	32.0	29.0	30.5	29.0	26.5	27.5	25.5	24.0	24.5
25	29.5	26.5	28.0	31.5	29.5	30.5	23.5	25.5	27.0	25.5	24.0	25.0
26	29.0	26.5	27.5	31.5	29.5	30.5	27.0	25.5	26.5	25.5	24.5	25.0
27	29.5	26.5	28.0	31.5	29.0	30.5	27.5	25.5	26.5	25.5	24.5	25.0
28	30.0	27.5	28.5	31.0	29.5	30.0	26.0	24.5	25.5	26.0	24.5	25.5
29	30.0	28.0	28.5	31.5	29.0	30.0	25.0	23.5	24.5	26.5	25.0	25.5
30	30.0	28.0	29.0	31.0	28.0	29.5	24.5	23.0	24.0	26.5	25.0	26.0
31	---	---	---	29.5	27.0	28.0	23.5	22.0	23.0	---	---	---

CUMBERLAND RIVER BASIN

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.2	8.5	8.8	8.8	8.6	8.7	9.5	8.5	9.1	13.4	13.3	13.4
2	9.8	9.5	9.6	8.8	8.5	8.7	10.1	9.4	9.7	13.5	13.3	13.4
3	9.8	9.6	9.7	8.8	8.6	8.7	10.7	9.9	10.3	13.4	13.2	13.3
4	9.6	9.3	9.4	9.1	8.7	8.9	11.2	10.8	11.0	13.3	13.1	13.2
5	9.4	9.4	9.4	9.4	9.1	9.2	11.6	11.0	11.4	13.3	13.1	13.2
6	9.6	9.5	9.5	9.9	9.5	9.7	11.6	11.4	11.5	13.7	13.1	13.4
7	9.7	9.5	9.6	10.2	9.9	10.0	11.8	11.6	11.7	13.6	13.4	13.5
8	9.9	9.7	9.8	10.5	10.2	10.4	11.8	11.6	11.7	13.7	13.5	13.6
9	10.0	9.7	9.8	10.7	10.5	10.6	11.8	11.7	11.7	13.8	13.6	13.7
10	9.9	9.6	9.8	10.8	10.6	10.7	11.8	11.6	11.7	13.7	13.6	13.6
11	9.6	9.4	9.6	10.7	10.5	10.6	12.1	11.5	11.8	13.7	13.6	13.6
12	9.6	9.2	9.4	10.6	10.4	10.5	11.9	11.5	11.7	13.6	13.5	13.6
13	9.3	9.0	9.2	10.5	10.3	10.4	11.6	11.0	11.5	13.6	13.4	13.5
14	9.3	8.9	9.1	10.4	10.1	10.2	11.7	11.4	11.5	13.5	13.4	13.5
15	8.9	8.7	8.8	10.2	10.0	10.1	12.2	11.7	12.0	13.6	13.4	13.5
16	8.9	8.7	8.7	9.9	9.7	9.8	12.6	12.3	12.4	13.6	13.4	13.5
17	8.8	8.6	8.7	9.9	9.6	9.8	12.7	12.5	12.6	13.5	13.3	13.4
18	8.7	8.6	8.6	9.9	9.7	9.8	12.8	12.6	12.7	13.4	13.2	13.3
19	8.6	8.4	8.5	9.9	9.6	9.7	13.0	12.7	12.8	13.1	12.9	13.0
20	8.5	8.2	8.4	9.8	9.6	9.7	13.2	12.8	13.0	13.0	12.9	12.9
21	8.3	8.1	8.2	10.1	9.7	9.9	13.4	13.2	13.3	12.9	12.7	12.8
22	8.2	8.0	8.1	10.1	9.9	10.0	13.5	13.3	13.4	12.8	12.6	12.7
23	8.1	8.0	8.0	10.3	9.9	10.1	13.3	13.2	13.3	12.9	12.6	12.7
24	8.1	8.0	8.0	10.4	10.3	10.4	13.3	13.2	13.2	12.9	12.8	12.8
25	8.3	7.9	8.1	10.5	10.4	10.4	13.4	13.2	13.3	12.7	12.6	12.7
26	8.3	8.1	8.2	10.4	10.0	10.3	13.5	13.4	13.4	12.7	12.5	12.6
27	8.4	8.1	8.2	10.2	10.0	10.1	13.5	13.4	13.4	12.9	12.5	12.7
28	8.4	8.2	8.3	10.0	8.2	9.1	13.5	13.4	13.5	13.3	12.9	13.1
29	8.5	8.2	8.3	9.6	8.4	9.0	13.5	13.4	13.5	13.4	13.2	13.3
30	8.5	8.2	8.4	9.8	8.3	9.2	13.5	13.4	13.5	13.6	13.3	13.5
31	8.9	8.3	8.5	---	---	---	13.4	13.4	13.4	13.7	13.5	13.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.6	13.4	13.5	12.3	12.0	12.2	10.4	10.1	10.3	9.2	8.8	9.0
2	13.4	13.2	13.3	12.5	12.3	12.4	10.2	9.9	10.1	9.2	8.7	8.9
3	13.2	12.8	13.0	12.5	12.3	12.4	10.1	9.8	10.0	9.4	8.9	9.1
4	12.7	12.6	12.6	12.4	12.3	12.4	10.0	9.7	9.9	9.5	9.2	9.3
5	12.3	10.2	11.4	12.4	12.2	12.3	10.0	9.6	9.8	9.5	9.2	9.3
6	10.3	8.3	9.6	12.6	12.0	12.3	9.7	9.4	9.6	9.4	9.0	9.2
7	12.5	11.1	11.8	12.6	12.5	12.5	9.6	9.2	9.5	9.2	8.5	8.9
8	11.5	10.5	11.0	12.8	12.7	12.7	9.3	9.0	9.2	8.9	8.5	8.7
9	11.0	10.6	10.8	12.8	12.5	12.7	9.4	9.1	9.2	8.7	8.3	8.5
10	11.3	10.6	10.9	12.6	12.2	12.5	9.5	9.2	9.4	8.6	8.3	8.4
11	11.9	11.1	11.4	12.1	11.7	12.0	9.7	9.5	9.6	8.6	8.2	8.3
12	12.2	11.4	11.8	11.8	11.3	11.6	9.8	9.6	9.7	8.5	8.1	8.3
13	12.0	11.6	11.8	12.0	10.9	11.3	9.9	9.7	9.8	8.2	8.0	8.1
14	12.1	11.6	11.9	11.0	10.5	10.7	9.9	9.6	9.7	8.2	7.9	8.0
15	12.2	11.8	12.1	10.5	10.3	10.3	9.8	9.7	9.7	8.2	7.8	8.0
16	---	---	---	10.7	10.1	10.5	9.8	9.6	9.7	8.2	7.7	7.9
17	---	---	---	11.0	10.8	10.9	10.1	9.7	9.9	8.0	7.6	7.8
18	---	---	---	11.0	10.7	10.9	10.2	10.0	10.1	7.8	7.4	7.6
19	---	---	---	10.8	10.6	10.7	10.1	9.8	10.0	7.8	7.4	7.6
20	10.9	10.7	10.8	10.6	9.9	10.4	9.8	9.6	9.7	8.1	7.6	7.8
21	11.1	10.9	11.0	11.1	10.6	10.8	9.7	9.5	9.6	8.3	7.8	8.0
22	11.4	11.0	11.2	11.7	11.1	11.5	9.9	9.6	9.7	8.4	8.0	8.2
23	12.6	11.3	11.7	12.2	11.8	12.0	9.9	9.7	9.8	8.3	6.3	8.0
24	12.1	11.6	11.7	12.2	12.0	12.1	9.9	9.7	9.8	10.0	8.5	9.5
25	11.9	11.6	11.8	12.1	11.7	12.0	9.8	9.5	9.7	9.8	9.4	9.7
26	12.0	11.8	11.9	11.7	11.3	11.6	9.5	9.2	9.4	9.7	9.2	9.6
27	11.8	11.7	11.7	11.4	11.0	11.2	9.3	9.0	9.2	9.6	9.3	9.5
28	12.0	11.8	11.9	11.1	10.8	11.0	9.5	9.2	9.4	9.6	9.3	9.5
29	---	---	---	10.9	10.5	10.8	9.5	9.1	9.3	9.5	9.2	9.3
30	---	---	---	10.6	10.3	10.5	9.4	9.0	9.2	9.3	8.7	9.0
31	---	---	---	10.4	10.4	10.4	---	---	---	8.9	8.6	8.8

BEST COPY AVAILABLE

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.7	8.5	8.5	7.1	6.6	6.8	7.6	6.9	7.4	8.2	7.9	8.0
2	8.6	7.7	8.4	7.1	6.5	6.7	7.6	6.9	7.4	8.2	7.9	8.0
3	8.4	8.0	8.2	7.1	6.6	6.9	7.8	7.0	7.4	8.3	7.0	7.9
4	8.0	7.9	7.9	7.1	6.8	6.9	7.9	7.1	7.5	8.7	8.3	8.5
5	8.1	7.9	8.0	7.1	6.7	6.9	7.9	7.2	7.6	8.6	8.4	8.5
6	8.0	7.9	8.0	7.1	6.6	6.8	7.8	7.1	7.5	8.5	8.1	8.4
7	8.0	7.9	8.0	7.0	6.5	6.7	7.6	7.2	7.4	8.5	8.4	8.4
8	8.1	7.9	8.0	6.9	6.3	6.6	7.4	6.7	7.1	8.5	8.2	8.4
9	8.0	7.7	7.9	7.3	6.7	7.0	7.7	6.8	7.2	8.6	8.3	8.4
10	7.9	7.5	7.7	7.2	6.7	6.9	7.5	6.9	7.2	8.6	8.2	8.4
11	8.2	7.9	8.1	7.4	6.7	6.9	7.5	6.5	7.1	8.6	8.1	8.3
12	8.1	7.6	8.0	7.3	6.7	7.0	7.2	6.8	7.1	8.5	7.9	8.2
13	8.1	7.7	8.0	7.3	6.9	7.0	7.7	7.2	7.4	8.5	8.0	8.2
14	8.2	7.9	8.1	7.5	7.0	7.2	7.7	7.3	7.5	8.4	7.9	8.1
15	8.2	7.9	8.0	7.4	6.9	7.1	7.9	7.3	7.5	8.3	7.8	8.0
16	8.2	7.8	8.0	7.4	7.0	7.3	7.6	7.2	7.4	8.2	7.7	7.9
17	8.1	7.6	7.8	7.6	7.0	7.3	7.7	7.2	7.4	8.6	7.6	8.2
18	8.2	7.6	7.8	7.4	6.9	7.1	7.7	7.1	7.4	8.4	8.0	8.2
19	8.1	7.5	7.8	7.3	6.8	7.1	7.7	7.2	7.4	8.4	8.0	8.2
20	7.9	7.4	7.6	7.2	6.7	6.9	7.7	7.1	7.4	8.5	8.0	8.2
21	7.8	7.2	7.5	7.3	6.5	6.9	7.7	7.2	7.4	8.4	7.9	8.1
22	7.6	7.0	7.3	7.2	6.7	6.8	7.6	7.1	7.4	8.2	7.7	7.9
23	7.4	6.8	7.1	7.3	6.6	6.9	7.6	7.1	7.4	8.0	7.5	7.7
24	7.3	6.6	6.9	7.4	6.6	7.0	7.6	7.0	7.3	7.9	7.4	7.6
25	7.2	6.6	6.9	7.5	6.6	7.0	7.7	7.2	7.4	7.7	7.3	7.5
26	7.7	6.6	7.1	7.4	6.6	6.9	7.7	7.1	7.3	7.7	7.1	7.4
27	7.6	7.0	7.3	7.4	6.6	7.0	7.7	7.1	7.4	7.5	7.0	7.2
28	7.4	6.8	7.1	7.3	6.6	6.9	7.7	7.1	7.5	7.5	7.0	7.2
29	7.4	6.6	7.0	7.5	6.6	7.0	8.0	7.5	7.7	7.4	6.9	7.1
30	7.3	6.7	7.0	7.6	6.8	7.1	8.0	7.7	7.8	7.3	6.8	7.0
31	---	---	---	7.3	6.9	7.0	8.1	7.7	7.9	---	---	---

TURBIDITY (JTU), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	850	5	2	1	60	30	4	3	7	6	4	3
2	130	45	3	1	30	20	10	3	7	6	5	4
3	50	35	3	2	20	15	5	3	8	6	6	4
4	20	15	4	2	20	15	4	4	9	7	5	3
5	15	9	10	3	15	10	5	4	35	8	4	2
6	10	6	9	6	10	9	5	3	110	20	6	2
7	6	4	7	6	8	6	4	3	110	40	7	6
8	5	3	8	5	8	6	5	4	40	30	7	6
9	4	1	7	5	6	5	5	4	30	15	8	5
10	3	1	6	5	7	6	5	4	15	10	9	6
11	2	1	7	4	8	5	6	3	10	10	9	6
12	3	1	5	3	6	5	4	3	10	9	8	6
13	2	1	4	3	6	5	4	3	10	8	9	7
14	3	1	3	1	8	5	5	3	8	7	10	9
15	2	1	3	1	9	8	5	4	9	8	20	10
16	2	1	3	2	10	8	5	2	150	8	30	20
17	2	1	3	2	10	9	4	3	310	80	25	15
18	7	---	4	1	9	6	4	2	220	75	15	15
19	7	---	2	2	7	5	4	2	75	45	15	10
20	1	---	3	2	6	4	5	3	40	30	350	15
21	1	---	3	2	6	5	5	3	35	20	440	65
22	1	---	4	3	6	5	6	4	25	15	60	25
23	2	1	9	3	6	5	9	6	15	9	35	15
24	2	1	10	8	6	5	10	8	10	7	55	9
25	3	1	15	10	6	4	9	7	8	5	9	8
26	2	1	15	8	5	4	10	9	5	4	9	7
27	1	---	8	7	5	4	9	7	5	4	8	6
28	1	---	340	6	5	4	7	5	6	3	7	6
29	2	1	360	230	5	4	6	5	---	---	7	6
30	1	---	230	65	6	3	7	6	---	---	8	6
31	3	---	---	---	4	4	8	6	---	---	7	5

CUMBERLAND RIVER BASIN

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5	4	3	2	10	9	6	2	5	3	10	5
2	5	4	3	2	15	7	4	2	4	3	110	5
3	5	3	3	2	15	8	4	2	5	3	470	60
4	5	3	3	2	150	30	4	3	5	3	450	250
5	5	4	3	2	110	75	3	2	5	3	260	130
6	5	4	3	2	90	30	4	2	4	3	120	55
7	5	3	8	3	55	30	4	2	7	2	50	30
8	5	3	4	3	25	10	8	2	4	3	25	20
9	5	3	5	3	15	9	4	2	4	2	20	15
10	4	3	3		100	9	4	2	4	2	15	10
11	5	3	3	2	210	100	4	2	20	3	15	10
12	6	5	4	2	120	35	4	2	50	4	15	9
13	8	6	4	2	50	30	4	2	4	3	10	7
14	25	8	4	2	30	20	4	2	4	4	8	5
15	8	6	10	3	20	15	4	2	4	3	7	4
16	6	4	4	3	15	9	4	2	5	3	5	4
17	4	3	4	2	10	6	3	2	4	3	8	4
18	3	2	2	1	6	5	3	2	3	3	6	4
19	3	2	4	1	5	4	3	2	4	2	6	3
20	4	2	2	1	5	3	4	2	6	3	7	4
21	4	3	3	1	5	4	3	1	4	3	6	4
22	4	3	4	1	5	4	3	1	4	3	7	4
23	3	3	180	1	5	4	4	2	3	2	6	3
24	3	2	460	75	6	4	4	2	3	3	5	3
25	4	3	260	100	4	3	4	2	4	2	5	3
26	3	2	110	75	4	2	4	3	4	2	4	3
27	4	3	130	35	4	2	4	3	4	3	3	3
28	4	3	35	25	4	2	5	3	25	3	4	2
29	4	3	35	25	4	2	5	3	6	4	4	2
30	3	2	25	15	4	2	5	3	6	5	3	2
31	---	---	15	10	---	---	5	3	15	4	---	---

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	5640	683	10100	229	4	2.6	3630	58	583
2	8310	474	10600	229	4	2.5	2990	55	440
3	3030	115	944	243	5	3.6	2340	24	154
4	1970	64	338	394	14	16	1900	29	151
5	1390	34	126	996	24	63	1620	28	120
6	942	34	86	1320	16	58	1470	24	96
7	709	27	52	963	23	57	1260	17	57
8	567	13	20	781	33	70	1080	16	46
9	465	11	13	670	22	40	971	15	38
10	400	9	9.5	572	16	25	877	13	31
11	355	5	5.0	505	12	17	800	10	22
12	321	4	3.3	467	11	14	805	3	7.1
13	289	5	3.8	436	11	13	1100	10	32
14	271	6	4.3	409	11	12	1680	38	177
15	322	13	11	392	11	12	1710	29	137
16	307	16	13	387	12	12	1520	11	44
17	325	12	11	486	12	16	1350	8	29
18	284	13	10	805	14	30	1170	11	35
19	253	4	2.6	781	13	28	960	9	23
20	235	6	3.8	693	13	25	820	7	16
21	232	9	5.4	617	13	22	821	7	16
22	223	11	6.9	661	13	24	709	4	8.3
23	355	20	21	1490	30	129	730	4	8.9
24	378	7	7.5	1510	22	89	759	6	11
25	344	5	4.8	1210	15	50	690	4	7.9
26	380	5	5.3	1010	17	46	550	3	4.5
27	333	5	4.8	959	14	37	460	3	3.5
28	293	5	4.2	5720	162	7080	453	3	3.6
29	261	5	3.4	19000	679	35700	440	3	3.8
30	248	5	3.1	6500	227	4350	425	3	3.3
31	241	4	2.9	---	---	---	420	3	3.3
TOTAL	29673	---	22425.6	50435	---	48043.7	36510	---	2312.2
		JANUARY			FEBRUARY			MARCH	
1	650	2	4.3	650	3	5.7	1620	32	142
2	1060	5	15	637	2	4.0	1480	26	104
3	593	3	5.5	722	3	6.5	1420	23	90
4	592	4	6.2	840	6	14	1320	24	85
5	566	4	6.7	1660	23	121	1170	23	74
6	559	5	7.6	4320	72	873	1110	14	43
7	549	5	7.2	4680	82	1050	1040	6	16
8	489	5	6.3	3880	46	490	931	4	11
9	460	9	11	2820	35	264	848	4	8.8
10	440	9	11	2210	32	190	800	3	7.3
11	430	8	9.0	1910	29	149	808	3	5.6
12	425	7	8.0	1560	27	114	845	5	12
13	420	7	8.3	1240	26	87	1010	8	24
14	410	7	7.7	1150	25	76	1730	14	65
15	400	5	5.9	1180	21	66	2610	20	160
16	390	6	6.1	1180	14	44	3190	32	281
17	380	8	7.9	7280	65	2490	2550	14	96
18	370	19	19	28200	360	28200	2070	10	55
19	460	11	13	11200	133	4100	2020	16	145
20	841	64	165	5480	94	1360	3590	90	1040
21	902	56	139	3610	77	751	2220	11	70
22	783	21	44	2690	64	466	1700	5	24
23	742	8	16	2180	53	309	1410	3	12
24	691	6	12	1850	41	206	1220	2	7.5
25	652	6	11	1720	31	144	1070	3	8.2
26	684	7	13	1520	14	59	950	3	8.9
27	750	9	18	1530	14	62	885	3	8.1
28	740	5	10	1760	62	297	835	5	11
29	710	4	8.2	---	---	---	761	5	9.5
30	700	4	7.5	---	---	---	701	5	10
31	670	4	6.5	---	---	---	652	4	6.7
TOTAL	18508	---	615.9	99659	---	42000.2	44566	---	2640.6

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)	MEAN DISCHARGE (FT³/S)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (T/DAY)
		APRIL			MAY			JUNE	
1	615	5	8.9	478	3	4.4	1440	15	59
2	576	6	10	425	3	3.0	1540	34	190
3	552	9	14	379	4	4.1	1670	34	155
4	526	9	12	350	6	5.7	1160	26	83
5	498	6	8.2	322	4	3.2	1100	27	81
6	471	5	6.8	304	5	4.4	1090	18	53
7	462	11	14	294	9	7.2	1550	37	159
8	472	14	18	290	4	3.3	1100	20	60
9	797	14	36	309	6	5.0	962	22	56
10	967	7	19	288	6	4.4	3060	64	603
11	786	4	8.7	255	5	3.4	3470	148	1400
12	710	4	7.3	221	5	2.9	2160	78	466
13	645	5	9.1	228	3	1.9	1390	30	114
14	587	6	9.1	244	3	2.2	956	18	46
15	549	6	8.2	246	5	3.0	717	12	23
16	514	3	4.7	229	7	4.1	568	8	13
17	479	4	5.4	197	8	4.2	458	6	7.8
18	447	3	4.2	172	6	2.7	369	5	5.2
19	431	3	3.9	172	5	2.1	302	4	3.6
20	408	3	3.6	217	4	2.5	259	4	2.5
21	481	11	14	224	5	3.1	226	4	2.5
22	689	28	53	225	4	2.2	198	3	1.9
23	696	13	25	1110	33	563	177	4	1.8
24	606	3	5.5	14900	434	17600	156	4	1.6
25	542	3	4.1	11700	154	4830	138	4	1.5
26	514	4	6.4	7150	121	2350	123	4	1.2
27	489	3	4.7	6560	84	1490	112	3	1.0
28	465	2	3.1	7370	44	886	104	3	.83
29	514	9	13	5030	33	457	103	4	1.1
30	543	5	6.8	3130	25	213	138	6	2.5
31	---	---	---	2080	18	99	---	---	---
TOTAL	17031	---	346.7	65099	---	28567.0	26796	---	3596.03
		JULY			AUGUST			SEPTEMBER	
1	157	4	1.7	71	4	.71	404	15	17
2	140	3	1.3	78	4	.94	734	41	158
3	188	3	1.9	66	3	.57	4730	319	4560
4	375	7	7.4	57	3	.38	1580	60	262
5	285	3	2.3	50	2	.26	855	39	90
6	192	3	1.4	45	2	.25	637	32	55
7	146	3	1.3	41	3	.28	464	27	34
8	121	3	1.1	52	8	1.2	344	23	22
9	106	3	.85	54	11	1.6	256	19	13
10	96	2	.55	54	5	.76	208	11	6.4
11	103	6	1.7	69	12	2.5	175	10	4.7
12	106	2	.60	914	17	36	165	10	4.4
13	172	3	1.4	504	7	10	327	29	30
14	170	3	1.5	288	6	4.3	393	31	34
15	221	4	2.6	195	5	2.9	267	15	11
16	271	5	3.9	143	5	2.0	224	7	4.2
17	240	4	2.7	168	10	4.6	265	14	10
18	237	5	3.5	182	11	5.3	282	12	9.2
19	215	3	1.7	142	6	2.1	243	8	5.5
20	164	2	.81	120	6	1.8	221	5	3.2
21	129	2	.54	107	6	1.6	264	7	5.2
22	106	2	.46	148	14	6.3	285	8	5.8
23	91	2	.61	149	5	2.2	248	6	4.2
24	87	2	.55	111	4	1.3	240	10	9.3
25	80	3	.60	95	4	1.1	393	41	46
26	73	2	.48	85	3	.75	263	18	13
27	66	3	.51	109	6	1.8	206	10	5.4
28	64	3	.47	149	10	4.1	169	6	2.9
29	66	2	.33	193	8	4.5	145	6	2.3
30	62	2	.41	294	8	6.1	131	5	1.7
31	58	4	.57	257	12	8.7	---	---	---
TOTAL	4587	---	45.74	4990	---	116.90	15118	---	5429.4
YEAR	412972		156139.97						

CUMBERLAND RIVER BASIN

03414000 CUMBERLAND RIVER NEAR ROWENA, KY

LOCATION.--Lat 36°53'02", long 85°08'22", Russell County, Hydrologic Unit 05130103, on right bank 1.5 mi downstream from Wolf Creek Dam, 1.9 mi west of Rowena, 2.0 mi upstream from Blackfish Creek, and at mile 459.4.

DRAINAGE AREA.--5,790 mi².

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for October 1939, published in WSP 1306.

REVISED RECORDS.--WSP 953: Drainage area. WSP 1336: 1940.

GAGE.--Water-stage recorder. Datum of gage is 540.81 ft Sandy Hook datum. Prior to Oct. 24, 1940, nonrecording gage at same site and datum. Oct. 1, 1943 to Sept. 30, 1948, auxiliary nonrecording gage at Rowena Ferry, 2.9 mi upstream.

REMARKS.--No estimated daily discharges. Records good above 2,000 ft³/s, and poor below. Flow regulated by Lake Cumberland beginning March 1950 (station 03413500). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--47 years, 9,031 ft³/s, 21.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 162,000 ft³/s, Jan. 9, 1946, gage height, 64.82 ft; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1826 reached a stage of 69.5 ft, from profile of Cumberland River.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23,800 ft³/s, July 30, gage height, 19.32 ft; minimum daily, 1,060ft³/s, Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2400	2950	3140	15900	4180	4220	5430	7710	1720	5920	5400	4120
2	2530	1670	5890	15900	2210	1840	5560	8200	6960	5570	3120	4750
3	2400	1510	12200	8430	6890	3440	5330	2130	7610	5620	2330	4710
4	2320	3850	11900	9100	7230	3400	5370	1660	4880	3040	5080	4630
5	1770	3960	11400	6400	5150	3510	1810	4820	4850	1860	5290	4880
6	1130	3990	11900	12700	5040	3190	1530	5100	4600	1820	5140	1980
7	3040	3900	10100	13000	4870	3390	6250	4900	2750	4810	5320	1850
8	3050	3820	8830	13000	4310	1990	6590	5440	1360	5500	5180	7460
9	2810	2920	13500	13800	2080	2470	6510	5230	2760	4790	3180	7430
10	2990	1510	13700	7290	4940	6170	6690	3240	2620	4450	2440	7690
11	2910	3140	14000	4090	5060	5180	6600	1770	2620	4460	5760	7760
12	1410	3010	14000	4030	5480	4970	2020	4490	2880	2980	5870	7620
13	1060	2980	13800	5920	6450	5160	1700	5470	2760	2000	5930	3340
14	3100	2950	14800	6680	3730	5090	6900	4170	1820	4500	5960	1850
15	3010	3110	14500	6190	4180	1720	6910	4690	1430	4520	5890	4580
16	3080	1580	15000	3250	1900	1750	7300	5280	3040	4510	3120	4470
17	3080	1850	15700	4250	4870	2030	7430	2980	2390	4430	2420	4880
18	3080	5710	16300	3160	2130	2100	7240	1840	2810	4450	6670	4730
19	1590	5840	17200	1970	1760	1970	1720	4770	3330	3030	6660	4810
20	1190	5620	15800	5870	1820	5020	1720	4870	3900	2000	6730	1970
21	2940	5740	17000	6420	3440	5350	7000	4760	1820	4760	6870	1890
22	3120	5990	17300	5460	3510	3450	7450	4750	1600	4710	6730	3340
23	3050	5820	15900	6120	5200	1680	8470	4680	4440	4750	3170	3450
24	3060	2160	16400	5760	7040	3940	8000	3090	4220	4720	2480	4120
25	2950	5770	17700	3990	7150	3320	7450	2070	4620	4580	6980	3420
26	1600	5970	18100	1930	5380	3320	2160	4480	4580	2980	7500	3290
27	1110	6090	15900	12100	4790	3590	1790	4640	4620	1760	7690	1950
28	3110	4290	10600	15500	4460	3610	7800	4730	2170	5570	7650	2060
29	3140	3790	10100	6360	---	1720	7830	4550	3400	5500	7360	5120
30	3270	3770	14800	5870	---	1730	7570	4320	4940	6080	3150	4730
31	3150	---	14900	6140	---	6350	---	2250	---	5590	1[illegible]	---
TOTAL	78450	115260	422360	236[illegible]	125250	106670	166130	133080	103600	131260	15[illegible]0	128880
MEAN	2531	3842	13620	7[illegible]32	4473	3441	5538	4293	3453	4234	5130	4296
MAX	3270	6090	18100	15900	7230	6350	8470	8200	7610	6080	7690	7760
MIN	1060	1510	3140	1930	1760	1680	1530	1660	1360	1760	1960	1850
CFSM	.44	.66	2.35	1.32	.77	.59	.96	.74	.60	.73	.89	.74
IN	.50	.74	2.71	1.52	.80	.69	1.07	.86	.67	.84	1.02	.83

CAL YR 1985 TOTAL 2489020 MEAN 6819 MAX 23300 MIN 1060 CFSM 1.18 IN 15.99
WTR YR 1986 TOTAL 1906550 MEAN 5223 MAX 18100 MIN 1060 CFSM .90 IN 12.25

03435140 WHIPPOORWILL CREEK NEAR CLAYMOUR, KY

LOCATION.--Lat 36°52'29", long 87°05'20", Todd County, Hydrologic Unit 05130206, on left bank at downstream side of bridge on country road, 0.4 mi downstream from North Fork, 1.5 mi southeast of Claymour, and at mile 37.6.

DRAINAGE AREA.--20.8 mi².

PERIOD OF RECORD.--May 1973 to current year.

REVISED RECORD.--WRD KY 75-1: 1974(M).

GAGE.--Water-stage recorder. Datum of gage is 607.86 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 28-Jan. 17, Jan. 24-Feb. 1, 11-15. Records fair except for periods of estimated daily discharge, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--13 years, 35.0 ft³/s, 22.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,380 ft³/s, Mar. 12, 1975, gage height, 17.75 ft, from floodmark in gage house, from rating curve extended above 870 ft³/s, on basis of slope-area measurement of peak flow; no flow at times most years.

CORRECTIONS.--The maximum discharge for water year 1984 is 5,750 ft³/s, May 7, 1984, gage height 15.96 ft (from flood crest); the previously published data was incorrect.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 1	1615	1,090	7.86	Feb. 6	1815	1,280	8.71
Dec. 11	1415	1,110	7.98	Mar. 19	0200	*1,910	*10.71

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	489	64	4.9	3.0	6.8	3.9	.47	14	7.7	.56	.00
2	6.6	137	28	4.6	5.3	6.5	3.8	.42	14	17	.40	.00
3	4.7	51	17	4.3	66	6.1	3.7	.36	11	2.5	.31	.00
4	3.6	33	14	4.0	43	5.6	3.6	.31	9.7	2.0	.20	.00
5	3.0	20	14	3.8	57	5.4	3.5	.33	12	1.8	.07	.00
6	2.8	15	13	3.6	508	5.1	3.4	.48	24	1.6	.01	.00
7	2.3	14	12	3.3	133	4.4	3.2	.48	26	1.4	.00	.00
8	1.2	13	12	3.1	44	3.8	3.1	.42	22	1.1	.00	.00
9	1.3	12	11	3.0	29	3.7	3.0	.26	14	.92	.00	.00
10	2.5	12	10	2.9	23	3.4	3.0	.15	14	.77	.72	.00
11	4.3	12	336	2.8	20	3.1	2.9	.23	12	.64	1.9	.04
12	5.3	13	67	2.6	16	150	2.5	.28	10	.54	1.2	9.8
13	5.6	13	73	2.5	14	170	2.4	.25	7.6	.47	.98	.14
14	7.1	12	32	2.3	12	33	2.0	12	6.2	.40	.80	.18
15	9.5	11	21	2.2	10	20	1.7	109	5.2	.33	.60	.15
16	10	157	18	2.1	198	13	1.7	14	4.3	.28	1.2	.10
17	11	24	16	2.0	273	11	1.6	8.9	4.3	.24	1.7	.02
18	12	14	13	5.3	69	82	1.5	5.3	4.0	.17	1.7	.07
19	13	12	12	29	36	458	1.5	4.1	3.5	.10	1.4	.30
20	26	11	11	13	24	34	1.8	3.4	3.3	.03	1.1	.33
21	14	11	11	9.9	17	18	2.0	2.9	3.2	.00	.89	.66
22	6.1	9.6	9.9	8.0	14	13	1.7	2.3	3.1	.00	.72	1.6
23	52	8.4	9.7	6.8	12	11	1.3	289	43	.00	.57	1.2
24	22	7.8	9.3	6.2	11	8.6	1.1	99	31	.00	.41	1.2
25	10	11	8.0	5.6	10	7.4	1.0	69	4.2	.00	.27	.96
26	7.1	26	7.6	5.1	10	6.5	.82	60	3.1	13	.14	.79
27	5.9	257	6.8	4.6	9.5	5.9	.71	34	2.8	3.8	.02	.72
28	5.6	101	6.2	4.2	7.7	5.1	.62	18	2.4	.72	.00	.63
29	5.2	38	6.0	3.9	---	4.7	.43	15	2.1	.34	.00	.56
30	259	25	5.6	3.6	---	4.3	.42	163	9.7	.50	.00	.48
31	99	---	5.2	3.3	---	4.2	---	21	---	.60	.00	---
TOTAL	632.7	1569.8	879.3	162.5	1674.5	1113.6	63.90	934.34	325.7	58.95	17.87	19.93
MEAN	20.4	52.3	28.4	5.24	59.8	35.9	2.13	30.1	10.9	1.90	.58	.66
MAX	259	489	336	29	508	458	3.9	289	43	17	1.9	9.8
MIN	1.2	7.8	5.2	2.0	3.0	3.1	.42	.15	2.1	.00	.00	.00
CFSM	.98	2.51	1.37	.25	2.87	1.73	.10	1.45	.52	.09	.03	.03
IN	1.13	2.81	1.57	.29	2.99	1.99	.11	1.67	.58	.11	.03	.04

CAL YR 1985 TOTAL 10792.34 MEAN 29.6 MAX 611 MIN .29 CFSM 1.42 IN 19.30
WTR YR 1986 TOTAL 7453.09 MEAN 20.4 MAX 508 MIN .00 CFSM .98 IN 13.33

03438000 LITTLE RIVER NEAR CADIZ, KY

LOCATION.--Lat 36°46'40", long 87°43'18", Trigg County, Hydrologic Unit 05130205, on left bank at downstream side of bridge on State Highway 1253, 50 ft downstream from Casey Creek, 8.8 mi southeast of Cadiz, and at mile 34.3.

DRAINAGE AREA.--244 mi², of which about 94 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--February 1940 to current year.

REVISED RECORDS.--WSP 1173: 1942-43, 1946(M), 1949. WSP 1306: 1940(M). WSP 1626: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 391.45 ft above National Geodetic Vertical Datum of 1929. Prior to July 31, 1945, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 7 to Feb. 27. Records good except those for estimated daily discharges, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--46 years, 352 ft³/s, 19.59 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,200 ft³/s, May 7, 1984, gage height, 22.45 ft; minimum observed, 1.0 ft³/s, Oct. 3, 1941.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 1	1530	*3,780	*12.08	No other peak greater than base discharge.			

Minimum daily, 24 ft³/s, Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	2680	622	156	79	313	190	88	99	86	30	24
2	80	3060	586	147	88	291	182	84	92	100	28	26
3	77	1410	524	142	686	281	174	87	92	81	29	29
4	75	945	482	135	623	263	167	80	182	71	29	33
5	72	718	435	129	767	253	159	77	323	63	30	37
6	73	594	395	122	1180	245	157	75	237	56	29	36
7	75	511	367	118	2370	233	152	74	214	57	31	32
8	78	444	325	114	1830	222	147	70	179	56	33	28
9	81	398	295	113	1460	216	145	70	156	50	34	27
10	83	371	275	111	1020	209	138	70	145	61	42	27
11	85	333	332	108	622	199	133	68	136	73	39	28
12	86	310	945	104	561	360	130	67	126	57	49	33
13	86	303	641	103	502	1340	125	68	114	52	40	106
14	86	286	565	101	469	831	122	76	105	48	36	59
15	98	267	476	97	434	573	116	157	99	50	34	39
16	89	1830	425	95	550	472	111	200	93	45	34	32
17	85	1920	394	93	1310	400	110	119	86	43	51	30
18	86	1020	363	91	1470	359	106	108	80	45	49	54
19	77	695	329	98	1020	467	106	91	76	43	38	60
20	89	610	310	134	752	495	109	81	73	40	34	64
21	159	513	308	131	691	388	111	75	70	36	32	47
22	220	480	294	127	572	343	120	70	68	35	31	40
23	267	422	246	118	500	315	118	68	70	34	29	35
24	740	376	231	112	450	297	108	146	103	35	28	34
25	340	373	216	97	414	281	104	253	97	35	27	47
26	241	452	204	93	380	265	103	196	78	35	32	49
27	196	714	202	88	369	249	95	180	68	35	34	42
28	167	884	199	86	344	236	91	166	62	34	29	37
29	149	733	181	84	---	221	89	136	62	35	26	36
30	619	658	172	82	---	212	88	120	80	33	25	33
31	1310	---	160	80	---	199	---	108	---	33	25	---
TOTAL	6038	24310	11499	3409	21513	11028	3806	3328	3465	1557	1037	1204
MEAN	195	810	371	110	768	356	127	107	116	50.2	33.5	40.1
MAX	1310	3060	945	156	2370	1340	190	253	323	100	51	106
MIN	69	267	160	80	79	199	88	67	62	33	25	24
CFSM	.80	3.32	1.52	.45	3.15	1.46	.52	.44	.48	.21	.14	.16
IN	.92	3.71	1.75	.52	3.28	1.68	.58	.51	.53	.24	.16	.18

CAL YR 1985 TOTAL 130166 MEAN 357 MAX 3060 MIN 52 CFSM 1.46 IN 19.84
WTR YR 1986 TOTAL 92194 MEAN 253 MAX 3060 MIN 24 CFSM 1.04 IN 14.06

BEST COPY AVAILABLE

03438190 BARKLEY-KENTUCKY CANAL NEAR GRAND RIVERS, KY

LOCATION.--Deflection-meter Gage: Lat 36°59'23", long 88°13'17", Lyon County, Hydrologic Unit 05130205, on north pier of bridge on State Highway 453, 1.1 mi southeast of Grand Rivers. Lake Barkley Gage: Lat 36°59'39", long 88°12'36", Lyon County, Hydrologic Unit 05130205, on north bank of Barkley-Kentucky Canal,at Lake Barkley end of canal (Cumberland River basin), 1.5 mi southeast of Grand Rivers, and 2.2 mi upstream from Barkley Dam. Kentucky Lake Gage: Lat 36°59'15", long 88°13'34", Lyon County, Hydrologic Unit 06040005, on north bank of Barkley-Kentucky Canal, at Kentucky Lake end of canal (Tennessee River basin), 1.1 mi southeast of Grand Rivers, and 2.9 mi upstream from Kentucky Dam.

PERIOD OF RECORD.--June 1966 to current year.

GAGE.--Deflection-meter recorder and water-stage recorders. Prior to Apr. 8, 1967, water-stage recorders. Datum of stage gages is 300.00 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Army Corps of Engineers).

REMARKS.--Estimated daily discharge: Dec. 2-19 and Sept. 26-30. Records fair except for periods of estimated daily discharge, which are poor. Figures of discharge represent net flow between Lake Barkley in Cumberland River basin and Kentucky Lake in Tennessee River basin. Canal initially opened on June 13, 1966. Canal is 1.8 mi long with a bottom width of 400 ft. Under normal operating conditions at Barkley Dam and Kentucky Dam, elevation at full pool is 359 ft and ordinary minimum pool is 354 ft. Minimum pool in advance of floods is at elevation 346 ft, canal depth 11 ft at this elevation. Maximum pool is at elevation 375 ft. Canal used for navigation and transfer of water between Kentucky and Barkley lakes. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--20 years, -7,193 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge Kentucky Lake to Lake Barkley, 48,000 ft³/s, May 28, 1974; Lake Barkley to Kentucky Lake, 54,700 ft³/s, June 9, 1974; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge Kentucky Lake to Lake Barkley, 29,700 ft³/s, Feb. 26; Lake Barkley to Kentucky Lake, 25 000 ft³/s, Feb. 19; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-5770	10700	-9510	-3750	2600	-11600	4240	3570	-10400	-8780	-3390	-8240
2	-10400	22400	-9530	4180	-1090	-3520	1640	5790	2690	-6910	-3900	-13400
3	-15200	11500	-22500	5910	-8060	2450	5110	5080	-1820	-7660	-2960	-15400
4	-14700	-3180	-25800	6760	1710	3050	6080	1010	-2280	-9730	-5100	-7270
5	-9570	-13400	7400	3770	7800	-1550	7620	-4190	7250	-8390	-9530	22900
6	-4560	-16900	-11100	0	-2650	696	5410	-3170	8210	-3700	-8090	22400
7	-5000	-13000	-20900	-7350	3860	772	3570	-1080	9170	-7350	-4980	14400
8	-1920	-20600	-27900	-10300	3790	-6090	6850	698	19900	-10100	-812	4150
9	-3540	-10000	-27100	-7790	-6880	0	-4370	680	15700	-13100	-4860	-1320
10	-786	2040	-25900	3350	-2260	823	4440	-1990	20100	-10100	-1520	-12100
11	-1170	-6570	-26700	8240	-16300	-355	4750	-3930	12800	-11900	-2870	-11900
12	-2440	-10800	1420	7660	-22600	4590	4440	-16	11200	-11900	-4380	-2560
13	3470	-8900	-14300	2240	-15200	17400	5210	-3260	3620	0	-9000	-4670
14	5140	-6430	19100	-132	1180	4170	-293	54	280	-11500	-6080	-4130
15	6680	-10900	-8230	-6390	-2250	3670	1600	-4170	-3480	-11400	-2920	-5420
16	5660	-1760	-18400	2880	-8140	-9060	2910	8070	-5960	-9250	-3330	-9290
17	1290	-3020	-19800	5700	-5140	-13100	3290	2590	-4670	-11200	-2950	-13900
18	-5450	-12400	-10900	5400	2870	-21300	4840	7960	-6760	-8700	-3370	-6210
19	7030	-2300	-10400	1620	25000	-17700	3810	-247	-2170	-6840	-10500	-232
20	0	2500	-7970	1700	14200	-9490	1520	1030	-457	-1540	-12300	3510
21	3890	-1620	-13700	-2290	-14700	-21000	3650	1960	-2310	-5070	-8910	5860
22	0	1840	-3820	2140	-19200	-28400	-438	-763	3910	-12900	-6200	2440
23	-7970	9480	7110	-4820	-19600	-27100	4160	5460	7820	-11700	-4370	-1890
24	0	10100	8180	1390	-18200	-19900	3710	5250	6320	-11500	-3310	-4530
25	-8260	5250	-6470	3340	-27700	-9350	6250	16500	2430	-14000	-7460	-5880
26	-10900	-776	-9130	8320	-29700	-5410	6950	4420	1660	-10800	-9810	-16500
27	3920	-9080	4650	-6910	-23500	400	3750	-1050	569	-1520	-1700	-17500
28	-4800	2980	6340	-7270	-21600	3310	5170	1270	8400	-6630	-5810	-17300
29	-15500	12600	10600	-4630	---	246	208	170	7550	-8390	-12200	-15600
30	-9000	5890	4640	-5220	---	4330	3350	-23900	4390	-10400	-8950	-17900
31	-5170	---	3340	-4620	---	1190	---	-17200	---	-8770	-9350	---
TOTAL	-105026	-54356	-257280	3728	-201760	-157828	109427	6596	113662	-271730	-180912	-137482
MEAN	-3388	-1812	-8299	120	-7206	-5091	3648	213	3789	-8765	-5836	-4583
MAX	7030	22400	19100	8320	25000	17400	7620	16500	20100	.00	-812	22900
MIN	-15500	-20600	-27900	-10300	-29700	-28400	-4370	-23900	-10400	-14000	-12300	-17900

CAL YR 1985 TOTAL -1364049 MEAN -3737 MAX 34400 MIN -34400
WTR YR 1986 TOTAL -1132961 MEAN -3104 MAX 25000 MIN -29700

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY

LOCATION.--Lat 37°01'19", long 88°13'16", Lyon County, Hydrologic Unit 05130205, on right bank in powerhouse at Barkley Dam, 0.7 mi upstream from bridge on U.S. Highway 62 and 641, 1.5 mi northeast of Grand Rivers, and at mile 30.6.

DRAINAGE AREA.--17,598 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1939 to current year (fragmentary prior to March 1940). Monthly discharge only for some periods, published in WSP 1306. Prior to October 1964, published as "at Smithland."

REVISED RECORD.--WSP 1173: 1974(M). WSP 1336: 1940-43.

GAGE.--Water-stage recorder. Datum of gage is 300.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Aug. 4, 1945, nonrecording gage and Aug. 4, 1945 to June 27, 1964, water-stage recorder at Smithland 27.8 mi downstream at datum 0.44 ft lower. June 28, 1964 to Dec. 28, 1965, water-stage recorder on left bank, 0.1 mi downstream at datum 0.06 ft lower. Auxiliary water-stage recorder at Dycusburg at mile 19.6, 11.0 mi downstream. Prior to Oct. 1, 1944, auxiliary nonrecording gage at Eureka at mile 31.5. Oct. 1 to Nov. 19, 1944, auxiliary nonrecording gage at Dycusburg at mile 19.6. July 1, 1940 to June 27, 1964, during periods of low flow, upper nonrecording gage at lock and dam F at mile 43.7.

REMARKS.--No estimated daily discharges. Records fair except those below 10,000 ft³/s, which are poor. Regulation of navigation dams on Cumberland River, and by Lake Cumberland, Dale Hollow Reservoir, Great Falls Lake, Center Hill Reservoir, Old Hickory Lake, J. Percy Priest Reservoir, and Lake Barkley. Barkley-Kentucky Canal (station 03438190) diverts water from or to Kentucky Lake in Tennessee River basin.

AVERAGE DISCHARGE.--25 years (1940-65, prior to opening of Barkley-Kentucky Canal), 27,510 ft³/s, 21.23 in/yr, unadjusted; 21 years (1965-86, since opening of Barkley-Kentucky Canal), 37,460 ft³/s, 28.91 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 209,000 ft³/s, Mar. 16, 1975; maximum gage height, 49.04 ft, Mar. 30, 1975; no flow July 2, 3, 1964 (construction cofferdam closed).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January to February 1937 reached a stage of 51.1 ft, former site and datum, 60.3 ft, present site and datum (from U.S. Army Corps of Engineers river profile).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 77,500 ft³/s, Feb. 20; maximum gage height, 31.05 ft, Dec. 7; minimum daily discharge, 2,430 ft³/s, Apr. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24200	23100	43200	19600	15800	18800	4940	4270	11500	17800	15900	19400
2	26000	23200	49300	20300	14900	12600	5670	4570	8450	14000	15800	19500
3	25300	21800	48900	26000	52700	14000	5530	4130	8960	14300	15800	19400
4	23900	30600	43900	22000	37300	17100	5080	3810	10100	13700	14200	19200
5	22500	37900	36000	20800	35800	17600	5080	3020	10700	13100	13300	18800
6	14700	36200	43300	22200	49300	18100	4760	5980	13600	12700	13400	19500
7	14000	38300	49500	25800	59800	18300	6840	5040	18700	16600	13600	19600
8	10700	39900	49700	26300	47100	16600	6530	5560	18700	17400	13000	20200
9	12000	15300	50300	26300	50100	9960	6170	6530	23000	19000	12700	19600
10	10800	12600	51500	3340	37900	14700	5280	6090	38500	19300	12900	20100
11	11700	20200	53300	8470	52200	16300	5110	5720	38800	19100	12900	19300
12	7280	21100	43800	15000	46700	3830	5320	5810	24800	18400	13200	19800
13	4770	22200	49200	15200	40100	15600	5100	6160	19500	18400	12600	19800
14	7240	21800	44000	15800	35800	54000	4270	5780	19600	17900	12800	20000
15	7550	22900	43200	19200	32200	51700	5360	6140	19600	17800	13200	19500
16	8400	21600	50800	13000	38800	49500	5980	8100	19500	17600	13200	19000
17	14100	27400	53100	13100	48300	48400	5310	7490	19200	18300	12500	19000
18	15200	31400	53500	13100	59900	48400	5180	8160	18600	18300	15600	15000
19	10100	16800	53700	13600	66200	48200	5180	7090	12400	18000	19800	8930
20	8670	20400	53600	14200	68300	48300	5110	6290	13000	18700	19700	5180
21	12800	19700	48000	14400	63700	47900	5040	6150	10200	16800	19600	6870
22	16700	19900	39700	22600	54400	44600	4230	5680	10300	15000	17200	11300
23	22800	14300	36000	21200	53000	43100	3580	7040	10000	15400	15400	12600
24	27600	17400	33800	18300	51900	34100	3360	6480	10900	17100	15200	12400
25	33900	16800	35400	20200	52200	22700	3200	6960	10600	18100	15900	13300
26	27800	23000	32400	22500	46200	23600	3040	10900	10900	14500	15100	8460
27	15800	36400	36200	27300	46300	15700	2970	20200	10600	15200	15400	5240
28	20800	37100	33000	28600	45000	10900	2430	17400	10700	15000	16800	6790
29	21600	50500	23700	30100	---	9730	3080	28200	10600	14800	19200	4560
30	23000	49600	23300	28000	---	5510	3590	45000	11400	15000	18900	5110
31	23500	---	24800	26800	---	5170	---	30000	---	15200	19600	---
TOTAL	525410	789400	1330100	613310	1301900	805000	142320	299750	473410	512500	474400	447440
MEAN	16950	26310	42910	19780	46500	25970	4744	9669	15780	16530	15300	14910
MAX	33900	50500	53700	30100	68300	54000	6840	45000	38800	19300	19800	20200
MIN	4770	12600	23300	3340	14900	3830	2430	3020	8450	12700	12500	4560
CFSM	.96	1.50	2.44	1.12	2.64	1.48	.27	.55	.90	.94	.87	.85
IN	1.11	1.67	2.81	1.30	2.75	1.70	.30	.63	1.00	1.08	1.00	.95

CAL YR 1985 TOTAL 9523940 MEAN 26090 MAX 67800 MIN 4770 CFSM 1.48 IN 20.13
WTR YR 1986 TOTAL 7714940 MEAN 21140 MAX 68300 MIN 2430 CFSM 1.20 IN 16.31

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY--Continued
(National stream-quality accounting and radiochemical network station)

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on U.S. Highway 62 and 641, 0.7 mi downstream from discharge station.
PERIOD OF RECORD.--Water years 1969-71, 1974 to 1986 (discontinued).
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1973 to September 1981.
WATER TEMPERATURES: December 1973 to September 1981.
REMARKS.--Flow regulated by many dams on lakes. Barkley-Kentucky Canal (station 03438190) diverts water from or to Kentucky Lake in the Tennessee River basin.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (NTU)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 1985											
23...	1100	24800	19.5	210	8.20	7.2	79	755	10	K24	K22
DEC											
11...	1130	53000	10.0	240	8.00	9.4	84	756	7.8	K19	K7
MAR 1986											
04...	0815	35500	7.5	258	7.80	11.5	97	758	6.0	K6	K2
APR											
16...	1100	8310	16.0	242	7.90	8.5	87	757	4.9	K5	150
JUN											
19...	1200	20000	26.5	203	8.30	7.5	94	760	3.1	--	140
AUG											
13...	1030	11300	27.0	230	8.00	8.1	102	758	3.0	K9	20

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 1985											
23...	84	3	25	5.1	6.5	1.6	82	99	81	26	6.9
DEC											
11...	110	17	37	5.4	5.3	1.7	98	120	98	17	6.6
MAR 1986											
04...	120	25	39	5.4	5.1	1.6	95	116	95	18	6.3
APR											
16...	110	18	37	5.1	4.5	2.3	96	117	96	16	6.1
JUN											
19...	90	14	28	4.8	7.0	1.9	76	93	76	22	6.9
AUG											
13...	96	15	30	5.1	6.7	1.9	82	99	81	22	7.8

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)
OCT 1985											
23...	0.1	2.9	117	0.13	<0.01	0.6	0.06	0.04	10	<1	31
DEC											
11...	0.1	5.2	135	0.67	0.05	0.5	0.06	0.08	20	<1	36
MAR 1986											
04...	0.1	3.8	154	1.10	0.06	0.6	0.07	0.04	--	--	--
APR											
16...	<0.1	1.3	139	0.41	0.11	0.7	0.06	0.02	20	<1	31
JUN											
19...	0.1	2.9	120	0.13	0.04	0.6	0.07	0.02	--	--	--
AUG											
13...	0.2	2.7	131	<0.10	0.06	0.7	0.10	0.05	--	--	--

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
OCT 1985										
23...	1	1	<1	<3	7	9	50	<4	4	0.1
DEC										
11...	<0.5	<1	<1	<3	<1	17	1	<4	9	<0.1
MAR 1986										
04...	--	--	--	--	--	--	--	--	--	--
APR										
16...	<0.5	<1	<10	<3	2	8	3	<4	10	<0.1
JUN										
19...	--	--	--	--	--	--	--	--	--	--
AUG										
13...	--	--	--	--	--	--	--	--	--	--

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1985										
23...	<10	<1	<1	<1	100	<6	11	10	670	100
DEC										
11...	<10	2	<1	<1	120	<6	11	54	7730	100
MAR 1986										
04...	--	--	--	--	--	--	--	9	863	100
APR										
16...	<10	3	<1	<1	110	<6	11	5	112	100
JUN										
19...	--	--	--	--	--	--	--	10	540	100
AUG										
13...	--	--	--	--	--	--	--	13	397	100

03609750 TENNESSEE RIVER AT HIGHWAY 60, NEAR PADUCAH, KY

(National stream-quality accounting and radiochemical network station)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°02'16", long 88°31'46", McCracken County, Hyrologic Unit 06040006, at auxiliary gaging station at bridge on U.S. Highway 60, 16.3 mi downstream from gaging station, 2.4 mi east of Paducah, and at mile 5.3.
DRAINAGE AREA.--40,330 mi²; 40,200 mi² at gaging station.
PERIOD OF RECORD.--Water years 1950, 1952, 1967-72, 1974-86 (discontinued).
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1973 to September 1981.
WATER TEMPERATURES: November 1973 to September 1981.
REMARKS.--Records of daily discharge are published for gaging station near Paducah (station 03609500) 16.3 mi upstream. Flow completely regulated. Barkley-Kentucky Canal (station 03438190) diverts water from or to Lake Barkley in the Cumberland River basin.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (NTU)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 1985											
24...	1030	38000	20.0	177	7.30	6.9	76	758	4.5	36	1900
DEC											
10...	1145	61600	10.0	188	8.10	10.1	89	762	5.3	K5	K12
MAR 1986											
04...	1115	5000	7.5	194	7.90	12.1	101	758	11	K2	K2
APR											
15...	1030	10100	17.0	203	7.50	7.3	76	753	5.1	K10	K360
JUN											
16...	1030	22000	26.5	176	8.05	7.9	100	756	2.0	K3	>2000
AUG											
11...	1045	15000	27.5	195	7.80	6.5	83	758	2.0	K12	300

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 1985											
24...	62	9	18	4.2	9.1	1.8	56	65	53	16	11
DEC											
10...	75	16	23	4.3	8.9	2.0	60	72	59	14	12
MAR 1986											
04...	74	6	23	4.0	10	1.9	68	83	68	17	11
APR											
15...	79	10	25	4.1	7.9	1.7	70	84	69	24	8.8
JUN											
16...	69	13	21	3.9	8.4	1.7	64	68	56	21	6.4
AUG											
11...	68	5	21	3.7	9.2	2.0	63	77	63	16	11

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03609750 TENNESSEE RIVER AT HIGHWAY 60, NEAR PADUCAH, KY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)
OCT 1985 24...	<0.1	4.6	98	0.13	0.09	0.4	0.06	0.04	20	1	30
DEC 10...	0.3	5.2	135	0.39	0.09	0.5	0.05	0.05	30	<1	30
MAR 1986 04...	0.1	0.2	114	0.28	0.05	0.7	0.08	0.01	--	--	--
APR 15...	0.1	1.0	114	0.30	0.13	0.5	0.05	0.03	20	<1	31
JUN 16...	0.1	2.5	110	<0.10	0.05	0.5	0.03	0.02	--	--	--
AUG 11...	0.2	2.9	111	<0.10	0.09	0.7	0.07	0.04	--	--	--

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
OCT 1985 24...	0.5	<1	<1	<3	7	19	10	<4	11	<0.1
DEC 10...	<0.5	2	2	<3	2	39	2	<4	17	<0.1
MAR 1986 04...	--	--	--	--	--	--	--	--	--	--
APR 15...	<0.5	<1	<1	<3	2	9	3	<4	24	<0.1
JUN 16...	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1985 24...	<10	<1	<1	<1	67	<6	6	11	1130	100
DEC 10...	<10	2	<1	<1	70	<6	24	8	1330	100
MAR 1986 04...	--	--	--	--	--	--	--	13	176	100
APR 15...	<10	<1	<1	<1	75	<6	8	--	--	--
JUN 16...	--	--	--	--	--	--	--	2	119	100
AUG 11...	--	--	--	--	--	--	--	15	607	100

03610200 CLARKS RIVER AT ALMO, KY

LOCATION.--Lat 36°41'30", long 88°16'25", Calloway County, Hydrologic Unit 06040006, on left bank at downstream side of bridge on State Highway 464, 0.3 mi southeast of Almo, 5.1 mi upstream from Rockhouse Creek, and at mile 53.5.

DRAINAGE AREA.--134 mi².

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 413.46 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges Dec. 15-18. Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s, Dec. 25, 1982, gage height, 17.40 ft; minimum daily, 1.6 ft³/s, Aug. 29, Sept. 6, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 3	1830	*7,170	*15.18	No other peak greater than base discharge.			

Minimum daily discharge, 2.2 ft³/s, Aug. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	814	711	34	34	27	21	19	20	4.9	2.6	4.2
2	22	521	348	33	422	27	21	18	19	5.4	2.5	4.4
3	20	167	332	34	5960	26	21	17	20	5.2	2.4	4.6
4	19	110	312	34	2690	25	20	17	20	4.7	2.2	6.2
5	18	88	307	32	751	24	20	17	19	4.3	2.2	7.0
6	18	72	317	31	634	24	20	17	19	4.3	3.0	4.9
7	17	62	335	31	1300	22	49	17	18	4.1	4.1	4.2
8	18	54	1050	29	322	21	33	17	59	4.2	4.6	4.0
9	17	48	492	28	169	21	29	17	113	3.9	4.4	4.1
10	17	46	443	28	104	21	23	16	44	4.8	26	4.2
11	17	43	277	29	93	21	21	16	131	5.6	11	4.5
12	17	46	167	29	79	430	20	17	74	5.7	6.3	5.4
13	17	46	146	29	66	615	19	16	10	8.7	5.2	4.6
14	17	42	141	29	149	139	19	19	8.2	4.7	4.9	4.1
15	36	39	120	28	224	84	19	970	7.2	5.6	4.8	4.0
16	24	1340	100	28	1750	57	18	100	6.6	5.1	8.5	4.2
17	19	324	80	31	607	44	18	44	6.2	4.1	7.0	4.3
18	18	124	60	70	295	47	18	49	5.7	3.6	5.4	117
19	18	104	51	411	136	62	18	32	5.5	3.4	5.1	321
20	1420	251	48	116	96	43	19	25	5.4	3.3	4.7	16
21	660	138	45	78	74	33	24	21	5.3	3.1	4.6	9.8
22	117	100	44	61	58	29	21	20	5.1	3.1	4.5	6.4
23	836	79	45	50	48	28	19	19	5.0	3.1	4.5	6.1
24	1290	70	45	46	43	27	19	21	5.3	2.8	5.8	5.8
25	192	74	40	44	38	26	18	52	5.8	2.8	5.8	5.7
26	107	95	36	42	37	24	18	176	5.4	2.9	4.8	6.0
27	83	1190	37	38	34	24	18	71	5.1	23	4.6	5.7
28	68	453	36	36	30	22	27	32	5.0	7.2	4.4	5.3
29	67	175	36	37	---	21	20	26	4.8	4.0	4.2	5.1
30	336	149	34	35	---	21	18	23	4.8	3.1	4.2	5.3
31	787	---	35	34	---	21	---	21	---	2.7	4.0	---
TOTAL	6341	6864	6270	1615	16243	2056	648	1942	662.4	153.4	168.3	594.1
MEAN	205	229	202	52.1	580	66.3	21.6	62.6	22.1	4.95	5.43	19.8
MAX	1420	1340	1050	411	5960	615	49	970	131	23	26	321
MIN	17	39	34	28	30	21	18	16	4.8	2.7	2.2	4.0
CFSM	1.53	1.71	1.51	.39	4.33	.49	.16	.47	.16	.04	.04	.15
IN	1.76	1.91	1.74	.45	4.51	.57	.18	.54	.18	.04	.05	.16

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CAL YR 1985  TOTAL   59400.1   MEAN  163   MAX  3510   MIN  6.4   CFSM 1.22   IN  16.49
WTR YR 1986  TOTAL   43557.2   MEAN  119   MAX  5960   MIN  2.2   CFSM  .89   IN  12.09
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MASSAC CREEK BASIN

03611260 MASSAC CREEK NEAR PADUCAH, KY

LOCATION.--Lat 37°02'29", long 88°42'39", McCracken County, Hyrologic Unit 05140206, on left upstream wingwall of bridge on U.S. Highway 62, 1.2 mi upstream from Middle Fork, 6.9 mi west of post office in Paducah, and at mile 8.3.

DRAINAGE AREA.--14.6 mi^2.

PERIOD OF RECORD.--October 1971 to current year

REVISED RECORDS.--1983 (M), 1984 (M).

GAGE.--Water-stage recorder. Datum of gage is 345.53 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Feb. 19 to Mar. 10. Records fair except for periods of estimated daily discharges, which are poor. Specific conductance and water temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--15 years, 19.8 ft/s, 18.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,990 ft^3/s, Sept. 5, 1985, gage height, 15.86 ft, observed; minimum, 0.06 ft^3/s, Nov. 14, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3 and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 12	0500	*1,440	*10.61				

Minimum daily discharge, 0.18 ft^3/s, June 30, July 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	79	43	2.7	3.8	2.8	2.3	2.1	2.7	.98	.97	.49
2	.88	36	18	2.8	43	2.6	2.7	1.3	2.4	7.7	.88	.54
3	.85	13	11	2.8	282	2.5	2.7	1.0	2.0	.34	.87	.49
4	.84	7.4	10	2.9	151	2.5	2.3	.96	17	.23	.83	.48
5	.82	5.2	9.0	2.6	46	2.4	3.1	.95	5.9	.28	.85	.43
6	.85	4.0	7.2	2.5	79	2.4	3.1	.88	4.0	.28	1.8	.41
7	.89	2.9	6.6	2.4	38	2.3	3.7	.84	11	.18	1.3	.71
8	.91	2.3	6.4	1.9	20	2.3	2.7	.81	6.1	.23	1.8	.41
9	1.0	2.2	5.7	2.1	14	2.2	2.0	1.0	9.9	.23	4.0	.37
10	1.1	2.1	5.4	2.2	11	2.2	2.0	.77	7.4	3.1	26	.82
11	1.1	2.1	62	2.2	11	2.1	2.0	.89	52	.47	1.7	2.6
12	1.9	4.9	23	2.3	12	381	2.1	.78	15	2.8	.97	1.1
13	2.8	5.4	14	2.2	7.8	44	1.8	.73	5.1	2.3	.88	.47
14	5.1	3.5	7.9	2.3	7.1	21	1.8	1.6	3.2	29	.83	.45
15	4.0	7.1	6.9	2.0	7.5	12	1.7	50	2.3	194	.82	.38
16	1.2	93	7.6	2.2	77	7.8	1.8	262	1.8	8.8	.93	.43
17	1.2	20	7.2	2.4	57	5.5	1.8	28	1.4	3.5	.84	.47
18	1.3	13	4.8	29	23	75	1.9	177	1.0	2.1	.78	.80
19	1.7	10	3.6	43	13	31	1.8	24	.99	1.7	.75	.82
20	150	12	3.9	14	9.5	11	2.7	11	.86	1.4	.69	.68
21	16	8.2	3.0	11	7.5	7.8	3.5	7.2	.73	1.2	.64	.60
22	7.7	7.0	4.1	7.2	6.0	6.3	2.0	5.4	.41	.97	.63	.54
23	15	6.0	4.8	5.8	5.0	5.2	1.7	5.6	.44	.88	.60	1.9
24	10	5.2	4.7	5.2	4.5	4.7	1.6	267	.48	.88	.61	.94
25	5.8	5.0	3.1	5.7	4.0	4.0	1.6	78	.34	.86	.54	.28
26	4.4	34	3.0	5.0	3.5	3.7	1.5	74	.28	.79	.56	.28
27	3.7	179	3.4	3.7	3.2	3.5	1.5	24	.28	.89	.52	.23
28	3.3	57	3.2	3.9	3.0	3.3	1.8	11	.28	.95	.49	.23
29	94	25	3.0	4.5	---	3.3	1.5	7.4	.28	.96	.43	.23
30	150	17	2.8	3.5	---	3.3	1.5	4.8	.18	.96	.45	.40
31	123	---	3.4	3.6	---	2.5	---	3.8	---	.94	.46	---
TOTAL	602.54	668.5	301.7	185.6	949.4	662.2	64.2	1054.81	155.75	269.90	54.42	18.98
MEAN	19.4	22.3	9.73	5.99	33.9	21.4	2.14	34.0	5.19	8.71	1.76	.63
MAX	150	179	62	43	282	381	3.7	267	52	194	26	2.6
MIN	.82	2.1	2.8	1.9	3.0	2.1	1.5	.73	.18	.18	.43	.23
CFSM	1.33	1.53	.67	.41	2.32	1.47	.15	2.33	.36	.60	.12	.04
IN	1.54	1.70	.77	.47	2.42	1.69	.16	2.69	.40	.69	.14	.05

CAL YR 1985	TOTAL	7957.28	MEAN	21.8	MAX	1380	MIN	.42	CFSM 1.49	IN. 20.27
WTR YR 1986	TOTAL	4988.00	MEAN	13.7	MAX	381	MIN	.18	CFSM .94	IN. 12.71

03611500 OHIO RIVER AT METROPOLIS, IL

LOCATION.--Lat 37°08'51", long 88°44'27", McCracken County, Hydrologic Unit 05140206, near center of span on downstream side of pier of Paducah & Illinois Railroad bridge at Metropolis, 9.5 mi downstream from Tennessee River, 37 mi upstream from mouth, and at mile 944.1.

DRAINAGE AREA.--203,000 mi², approximately.

PERIOD OF RECORD.--January 1928 to current year. Prior to January 1934 monthly discharge only, published in WSP 1305. Gage-height records collected 9.6 mi upstream at Paducah since 1890 are contained in reports of National Weather Service. Occasional discharge measurements 1881 to 1924 in reports of Mississippi River Commission.

GAGE.--Water-stage recorder. Datum of gage is 276.27 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 22, 1936, water-stage recorders (temporary installations) at Paducah, Ky., Metropolis and Joppa, Il., and Dam 52. Auxiliary water-stage recorder near Grand Chain, 0.5 mi upstream from Dam 53, and 18 mi downstream from base gage. Prior to May 29, 1936, auxiliary nonrecording gage at Dam 53.

REMARKS.--Records good except those below 100,000 ft³/s, which are fair, and those for the period Oct. 12-24 which are poor. Flow regulated by many dams and reservoirs. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

AVERAGE DISCHARGE.--58 years, 271,600 ft³/s, 18.17 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,780,000 ft³/s, Feb. 1, 1937, total discharge, including overflow through Bay Creek and Cache River Valleys, 1,850,000 ft³/s; maximum gage height, 66.60 ft, Feb. 2, 1937; minimum daily scharge, 15,000 ft³/s, July 30, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 803,000 ft³/s, Dec. 9; maximum gage height, 45.20 ft; minimum daily discharge, 30,000 ft³/s, Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95500	206000	611000	142000	206000	507000	196000	99400	158000	108000	67100	56100
2	97700	202000	653000	139000	180000	435000	172000	88900	145000	121000	46400	61800
3	105000	203000	690000	141000	251000	386000	151000	91800	138000	140000	58300	47700
4	91700	222000	714000	142000	303000	350000	140000	91700	110000	175000	66200	52300
5	101000	248000	721000	137000	313000	317000	137000	88700	109000	193000	61300	106000
6	99100	268000	735000	141000	363000	279000	106000	93300	113000	211000	55400	116000
7	98200	297000	782000	145000	444000	247000	89300	87700	136000	216000	42800	119000
8	101000	334000	793000	143000	483000	223000	102000	88200	174000	217000	40000	104000
9	101000	366000	803000	136000	514000	200000	109000	103000	201000	175000	58000	86700
10	90200	381000	791000	128000	540000	194000	113000	111000	281000	129000	60300	68000
11	72200	415000	762000	117000	568000	201000	109000	109000	309000	162000	59600	65200
12	30000	445000	698000	109000	604000	206000	107000	95600	276000	242000	72600	82100
13	46000	462000	616000	109000	618000	230000	106000	96100	255000	108000	76400	90800
14	31000	473000	574000	109000	632000	329000	110000	97600	255000	121000	72000	71800
15	40000	470000	539000	110000	633000	427000	119000	120000	246000	164000	51000	69100
16	37000	475000	535000	109000	620000	476000	112000	176000	240000	184000	55400	73200
17	35000	496000	536000	107000	599000	504000	106000	191000	237000	201000	62800	73400
18	51000	544000	546000	106000	575000	471000	105000	190000	224000	185000	64300	78900
19	34000	572000	561000	107000	566000	546000	107000	169000	190000	154000	73300	77900
20	35000	591000	575000	127000	550000	559000	108000	138000	161000	153000	70400	73200
21	102000	614000	573000	144000	573000	563000	131000	115000	162000	144000	68300	76300
22	174000	646000	537000	180000	574000	553000	148000	114000	154000	127000	63000	78500
23	159000	661000	431000	208000	592000	553000	152000	156000	107000	128000	65400	85600
24	170000	665000	368000	219000	602000	553000	157000	151000	115000	132000	71300	79000
25	237000	539000	325000	244000	583000	517000	160000	162000	98600	111000	57500	85000
26	215000	514000	284000	270000	577000	481000	161000	173000	81700	114000	67800	100000
27	192000	526000	256000	288000	572000	420000	161000	183000	79700	112000	64800	83100
28	161000	528000	236000	304000	557000	339000	163000	179000	57200	89700	60700	81600
29	155000	558000	212000	300000	---	284000	150000	186000	80200	79200	65100	97900
30	187000	588000	181000	278000	---	248000	111000	217000	85200	74700	64900	104000
31	201000	---	167000	252000	---	219000	---	191000	---	74900	54800	---
TOTAL	3344600	13509000	16805000	5191000	14202000	11817000	3898300	4153000	4978600	4545500	1917200	2444200
MEAN	107900	450300	542100	167500	507200	381200	129900	134000	166000	146600	61850	81470
MAX	237000	665000	803000	304000	633000	563000	196000	217000	309000	242000	76400	119000
MIN	30000	202000	167000	106000	180000	194000	89300	87700	57200	74700	40000	47700

CAL YR 1985 TOTAL 105022000 MEAN 287700 MAX 803000 MIN 30000
WTR YR 1986 TOTAL 86805400 MEAN 237800 MAX 803000 MIN 30000

BEST COPY AVAILABLE

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°12'11", long 89°02'30", Pulaski County, Hydrologic Unit 05140206, at auxiliary gaging station, 0.5 mi upstream from Gar Creek, 3.0 mi southwest of Grand Chain, 18.1 mi downstream from gaging station at Metropolis, and at mile 962.2.

DRAINAGE AREA.--203,100 mi², approximately.

PERIOD OF RECORD.--Water years 1955 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1954 to September 1970, January 1973 to current year.

WATER TEMPERATURES: October 1954 to September 1970, January 1973 to current year.

REMARKS.--Records of daily discharge are published for station at Metropolis, IL, (station 03611500). Flow regulated by many days dams and reservoirs.

COOPERATION.--Records of specific conductance and water temperature collected by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 693 microsiemens, Nov. 25, 1968; minimum daily, 170 microsiemens, Feb. 9, 1957, Jan. 21, 1973.

WATER TEMPERATURES: Maximum daily, 31.0°C, July 15, 1964, July 17-21, 25, 1977; minimum daily, 0.0°C, on several days during most winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 416 microsiemens, Oct. 23; minimum daily, 229 microsiemens, Oct. 6-8.

WATER TEMPERATURES: Maximum daily, 30.0°C, July 30, 31 and Aug. 1, 2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	BAROMETRIC PRESSURE (MM OF HG)	TURBIDITY (NTU)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 1985											
22...	1230	147000	20.0	390	7.60	6.4	71	759	15	87	240
DEC											
12...	1200	672000	7.0	296	8.00	9.2	76	759	51	150	270
MAR 1986											
05...	1045	302000	6.0	324	7.40	11.0	89	756	--	34	K1000
APR											
17...	1110	104000	15.0	384	8.10	10.6	106	757	11	K4	K3
JUN											
17...	1020	236000	26.0	340	7.35	6.4	80	759	43	53	>1000
AUG											
12...	1110	73100	27.5	340	7.40	7.5	95	760	22	44	21

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICARBONATE IT-FLD (MG/L AS HCO3)	ALKALINITY, CARBONATE IT-FLD (MG/L - CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 1985											
22...	130	53	34	12	20	2.9	82	--	--	58	26
DEC											
12...	130	44	37	9.7	7.9	3.0	91	109	89	40	12
MAR 1986											
05...	130	59	35	9.6	13	2.1	71	83	68	54	18
APR											
17...	170	68	46	13	13	2.0	101	123	101	62	20
JUN											
17...	150	49	40	11	13	2.7	95	117	96	50	17
AUG											
12...	130	19	37	10	12	2.6	115	--	--	41	16

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)
OCT 1985 22...	0.2	1.8	222	0.42	0.06	0.7	0.11	0.06	10	1	48
DEC 12...	0.2	7.7	178	1.70	0.06	0.9	0.13	--	30	<1	45
MAR 1986 05...	0.2	4.9	191	1.60	0.09	1.0	0.15	0.03	--	--	--
APR 17...	0.2	3.2	223	1.50	0.04	0.7	0.07	0.02	20	<1	46
JUN 17...	0.2	4.2	197	2.50	0.05	0.7	0.16	0.05	--	--	--
AUG 12...	0.2	1.6	193	0.77	0.08	0.8	0.11	0.04	--	--	--

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
OCT 1985 22...	2	2	<1	<3	4	12	<1	<4	1	<0.1
DEC 12...	<0.5	<1	1	<3	4	33	1	4	11	<0.1
MAR 1986 05...	--	--	--	--	--	--	--	--	--	--
APR 17...	<0.5	<1	2	<3	1	5	1	5	5	--
JUN 17...	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1985 22...	<10	1	<1	<1	210	<6	11	64	25400	100
DEC 12...	10	3	<1	<1	140	<6	6	185	336000	100
MAR 1986 05...	--	--	--	--	--	--	--	112	91300	100
APR 17...	<10	1	<1	<1	190	<6	12	23	6460	100
JUN 17...	--	--	--	--	--	--	--	88	56100	100
AUG 12...	--	--	--	--	--	--	--	41	8090	100

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	260	299	378	334	---	291	294	337	301	348	315	302
2	281	288	410	---	---	322	294	337	329	367	306	297
3	---	---	356	334	---	333	294	332	315	371	295	296
4	276	288	356	334	---	343	294	332	329	414	295	287
5	260	299	389	323	---	354	292	332	328	414	295	287
6	229	306	400	---	---	364	304	337	338	414	299	282
7	229	319	---	355	---	354	304	337	347	400	309	282
8	229	319	---	329	---	354	299	337	310	414	304	282
9	260	320	---	323	---	364	294	388	348	400	290	287
10	250	397	---	334	---	343	296	369	348	338	286	287
11	276	360	---	344	---	343	323	367	338	340	285	287
12	296	391	---	376	---	322	314	362	343	338	285	297
13	260	385	---	339	---	302	306	367	329	338	285	297
14	239	379	---	329	---	291	309	357	348	338	285	292
15	260	340	---	329	---	343	314	347	348	324	290	297
16	255	309	---	329	---	328	314	346	353	318	295	297
17	234	278	---	334	---	312	312	337	347	310	293	292
18	260	278	---	313	---	---	308	296	341	311	290	288
19	281	283	---	318	---	---	314	306	329	300	284	292
20	286	280	---	339	---	312	319	286	329	301	285	287
21	270	267	---	307	---	312	323	296	340	301	294	287
22	291	247	---	313	---	322	319	306	348	301	294	296
23	416	258	---	288	---	322	323	---	352	306	299	308
24	374	---	---	302	---	302	318	352	357	299	295	275
25	354	268	---	286	312	291	326	349	360	304	295	297
26	---	---	---	297	302	274	337	348	367	305	317	297
27	---	---	---	307	302	284	337	---	367	309	312	313
28	---	---	---	---	291	284	336	329	357	314	312	329
29	---	---	---	---	---	283	326	321	366	314	312	340
30	---	---	---	---	---	284	332	310	338	314	312	356
31	---	---	---	---	---	284	---	310	---	314	297	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	17.5	13.0	3.5	---	4.5	10.5	16.5	---	26.5	30.0	26.0
2	25.0	17.0	8.0	---	---	5.5	10.5	16.5	22.5	26.5	30.0	26.0
3	---	---	6.5	3.5	---	5.5	11.5	16.5	23.0	26.5	29.5	26.0
4	23.0	16.0	6.5	4.0	---	5.5	11.0	16.5	22.5	27.0	29.0	26.0
5	23.0	17.0	6.5	3.0	---	5.5	11.0	16.0	22.5	28.0	29.0	26.0
6	20.0	17.0	6.5	---	---	5.5	11.5	16.5	21.5	---	29.0	25.5
7	20.0	16.0	---	3.5	---	5.5	14.0	16.5	22.0	---	29.0	25.5
8	20.0	15.5	---	3.0	---	5.5	15.0	16.5	22.0	---	29.0	24.5
9	20.0	15.5	---	3.0	---	5.5	15.5	16.5	22.0	28.5	29.0	24.5
10	20.0	15.5	---	3.0	---	5.5	15.5	19.0	23.5	28.5	29.0	24.5
11	20.0	15.5	---	3.0	---	6.5	15.5	21.0	23.5	28.5	28.0	24.5
12	19.5	15.5	---	3.0	---	6.5	15.5	21.5	23.5	28.5	28.0	24.5
13	19.5	15.5	---	3.0	---	6.5	15.5	21.5	23.5	28.5	28.0	24.0
14	---	15.5	---	2.5	---	6.5	16.0	21.5	24.0	28.5	28.0	24.0
15	19.5	15.5	---	2.5	---	7.0	16.0	21.5	24.5	28.5	28.0	24.0
16	19.5	15.5	---	2.5	---	7.0	16.0	21.5	24.5	28.5	28.0	24.0
17	18.5	14.5	---	2.5	---	8.0	16.0	21.5	24.5	29.0	28.0	24.0
18	18.5	14.5	---	2.5	---	---	14.5	22.0	24.5	29.0	28.0	24.5
19	18.5	14.5	---	2.5	---	---	16.5	22.0	24.5	29.0	28.0	24.0
20	18.5	14.5	---	2.5	---	8.5	15.5	22.0	24.5	29.0	27.5	24.5
21	18.5	14.5	---	3.5	---	8.5	15.5	22.0	25.5	29.0	27.5	24.5
22	18.5	15.0	---	3.5	---	8.5	15.5	21.5	25.5	29.0	27.5	24.5
23	18.5	13.0	---	3.5	---	8.5	11.5	---	25.5	29.0	27.5	24.5
24	18.5	13.0	---	3.5	---	8.5	14.5	21.0	25.5	29.0	26.5	24.5
25	18.5	11.5	---	3.5	4.5	9.0	16.0	21.0	25.5	29.5	27.0	24.5
26	---	---	---	3.5	4.5	9.0	16.5	21.0	26.5	29.5	28.0	24.5
27	---	---	---	2.5	4.5	9.0	16.0	21.0	26.5	29.5	28.0	24.5
28	---	---	---	---	4.5	9.0	16.0	21.0	26.5	29.5	27.5	25.0
29	---	---	---	---	---	9.5	15.5	21.0	26.5	29.5	26.5	25.0
30	---	---	---	---	---	9.5	15.5	21.0	26.5	30.0	26.5	25.0
31	---	---	---	---	---	10.0	---	21.5	---	30.0	26.0	---

BAYOU DE CHIEN BASIN

07024000 BAYOU DE CHIEN NEAR CLINTON, KY

LOCATION.--Lat 36°37'43", long 88°57'50", Hickman County, Hydrologic Unit 08010201, on right bank at downstream side of bridge on U.S. highway 51, 1.1 mi upstream from Cane Creek, 3.2 mi southeast of Clinton, and at mile 15...

DRAINAGE AREA.--68.7 mi².

PERIOD OF RECORD.--October 1939 to September 1950 (monthly discharge only for some periods, published in WSP 1311), October 1950 to September 1978, September 1984 to current year. Published as "Bayou de Chien near Clinton," October 1954 to September 1968.

REVISED RECORDS.--WSP 1311: 1940 (M), 1942-44 (M). WSP 1711: Drainage area.

GAGE.--Water-Stage recorder. Datum of gage is 307.71 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 2, 1951, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: July 19-Aug. 7, Aug. 27-Sept. 3, and Sept. 7-23. Records fair except for periods of estimated daily record, which is poor.

AVERAGE DISCHARGE.--41 years (water years, 1940-78, 85-86), 106 ft³/s, 20.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,460 ft³/s, Jan. 2. 1956, from rating curve extended above 4,000 ft³/s; maximum gage height, 16.22 ft, Mar. 12, 1965; minimum daily discharge, 4 ft³/s, May 29, 1943 (affected by backwater from Mississippi River).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 4	0300	*1,570	*14.50				

Minimum daily discharge, 11 ft³/s, Aug. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	113	84	27	30	21	22	21	21	17	12	14
2	29	82	404	27	569	21	21	19	21	18	12	14
3	27	53	75	28	1410	21	20	14	21	17	11	30
4	26	41	55	27	1410	21	20	12	30	17	11	453
5	24	36	50	26	410	20	20	12	28	17	12	37
6	24	34	45	26	330	19	20	12	55	16	15	19
7	23	32	40	26	145	18	20	12	39	17	25	18
8	23	30	38	25	80	18	32	12	26	17	17	17
9	23	31	40	27	64	17	25	12	337	17	24	16
10	25	30	38	25	58	20	20	12	124	16	97	16
11	24	31	36	27	49	24	18	13	105	17	18	17
12	23	34	189	26	53	825	17	19	144	22	16	27
13	23	36	96	26	45	276	15	19	27	22	15	21
14	42	33	63	25	65	88	15	117	22	38	14	19
15	39	32	61	25	81	57	15	1220	21	57	13	18
16	27	473	52	25	370	41	15	305	20	20	74	17
17	25	107	41	27	459	32	15	55	19	17	21	17
18	25	67	36	92	126	103	15	369	18	16	19	50
19	28	55	33	268	77	161	15	73	18	15	19	500
20	633	120	30	65	46	63	24	38	18	15	19	60
21	303	69	32	49	38	47	35	28	18	14	18	40
22	68	50	31	36	31	37	23	24	18	14	17	25
23	580	41	35	26	28	30	17	24	19	13	17	20
24	554	37	35	36	25	26	15	258	20	13	17	18
25	103	35	29	37	23	26	14	279	17	13	16	18
26	57	38	32	31	21	26	12	324	17	20	15	17
27	44	698	28	23	21	26	12	83	17	80	14	17
28	39	548	28	27	21	24	18	43	17	25	14	17
29	41	129	27	29	---	22	15	31	18	17	13	17
30	85	78	26	28	---	22	12	24	17	15	13	17
31	156	---	29	28	---	22	---	21	---	13	13	---
TOTAL	3187	3193	1838	1220	6085	2174	557	3505	1292	645	631	1586
MEAN	103	106	59.3	39.4	217	70.1	18.6	113	43.1	20.8	20.4	52.9
MAX	633	698	404	268	1410	825	35	1220	337	80	97	500
MIN	23	30	26	23	21	17	12	12	17	13	11	14
CFSM	1.50	1.54	.86	.57	3.16	1.02	.27	1.64	.63	.30	.30	.77
IN	1.73	1.73	.00	.66	3.29	1.18	.30	1.90	.70	.35	.34	.86

CAL YR 1985 TOTAL 35698 MEAN 97.8 MAX 1550 MIN 15 CFSM 1.42 IN 19.33
WTR YR 1986 TOTAL 25913 MEAN 71.0 MAX 1410 MIN 11 CFSM 1.03 IN 14.03

DISCHARGE AT PARTIAL-RECORD STATIONS

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. At a few of these stations crest stages are determined from continuous water-stage recorder graphs. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

					Annual maximum		
Station no.	Station name	Location	Drainage area (miU)	Period of record	Date	Gage height (feet)	Dis-charge (ftZ/s)
		Big Sandy River basin					
03209575	Bill D Branch near Kite, Ky.	Lat 37°18'39", long 82°48'58", Knott County, at culvert on county road, 700 ft downstream from right hand fork, 1.0 mi southwest of Kite, and at mile 1.0.	3.17	1976-86	02-18-86	6.63	226
03210100	Caney Fork near Gulnare, Ky.	Lat 37°35'11", long 82°32'23", Pike County, on right bank, adjacent to State Highway 2061, 0.3 mi downstream from Cranesnest Branch, 2.9 mi south of Gulnare, and at mile 1.1.	3.74	1975†, 1977-86	b	b	b
		Little Sandy River basin					
03216505	Beckwith Branch Tributary near Grayson, Ky.	Lat 38°21'20", long 82°54'18", Carter County, at culvert on Interstate Highway 64, 2.6 mi northeast of Grayson, and at mile 0.1.	.51	1977-86	02-18-86	12.72	<20
03216563	Mile Branch near Rush, Ky.	Lat 38°21'50", long 82°47'45", Carter County, at culvert on Interstate Highway 64, 2.1 mi northwest of Rush, and at mile 1.3.	.94	1976-86	11-27-85	6.03	257
03216564	Mile Branch near Coalton, Ky.	Lat 38°21'56", long 82°46'50", Boyd County, at culvert on Interstate Highway 64, 1.2 mi southwest of Coalton, and at mile 0.5.	1.61	1977-86	02-17-86	14.29	315
		Tygarts Creek basin					
03216901	Trough Camp Creek Tributary near Olive Hill, Ky.	Lat 38°20'09", long 83°12'11", Carter County, at culvert on State Highway 2, 2.9 mi northwest of Olive Hill, and at mile 0.3	1.11	1976-86	b	<5.35	<85
		Cabin Creek basin					
03237895	Indian Run Tributary near Tollesboro, Ky.	Lat 38°34'52", long 83°30'01", Lewis County, at culvert on State Highway 10, 4.5 mi northeast of Tollesboro, and at mile 0.3.	.23	1975-86	11-28-85	87.22	122
		Lawrence Creek basin					
03238030	Lawrence Creek near Maysville, Ky.	Lat 38°38'04", long 83°47'32", Mason County, at culvert on U.S. Highway 62 and 68, 0.5 mi above tributary on left bank, 1.8 mi southwest of Maysville, and at mile 7.9.	1.90	1975-86	11-12-85	88.39	150
		Licking River basin					
03250080	Jacks Branch near Morehead, Ky.	Lat 38°13'12", long 83°27'03", Rowan County, at culvert on Interstate Highway 64, 3.0 mi north of Morehead, and at mile 0.2.	.19	1976-86	05-14-86	14.56	<50
03250150	Indian Creek near Owingsville, Ky.	Lat 38°09'24", long 83°39'05", Bath County, at culvert on Interstate Highway 64, 1.3 mi above Knox Hill Branch, 6.2 mi east of Owingsville, and at mile 1.5.	2.43	1975-86	11-27-85	66.63	330
03250243	Rose Run Tributary near Olympia, Ky.	Lat 38°06'46", long 83°42'30", Bath County, at culvert on county road, 1.2 mi northwest of Olympia, and at mile 1.1.	.70	1975-86	03-13-86	86.64	143
03250620	Johnson Creek Tributary near Fairview, Ky.	Lat 38°28'46", long 83°59'07", Robertson County, at culvert on State Highway 1029, 3.2 mi northwest of Fairview, and at mile 0.1.	.33	1976-86	03-13-86	5.85	100
03251008	Wells Creek Tributary near Washington, Ky.	Lat 38°35'26", long 83°49'24", Mason County, at culvert on U.S. Highway 68, 1.9 mi south of Washington, and at mile 1.0.	.96*	1977-86	11-28-85	13.85	100
03251015	Lees Creek Tributary at Mays Lick, Ky.	Lat 38°31'28", long 83°50'04", Mason County, at culvert on U.S. Highway 68, 0.6 mi northeast of Mays Lick, and at mile 0.5.	.45	1975-86	b	<92.83	<38

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station no.	Station name	Location	Drainage area (miU)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ftZ/s)
		Pleasant Run Creek basin					
03260010	Pleasant Run Creek at Crescent Springs, Ky.	Lat 39°03'18", long 84°33'59", Kenton County, in trailer court at intersection of Venus Avenue and Mercury Way, near village of Crescent Springs, and at mile 0.2.	0.68	1973-86	05-26-86	8.80	375
03260012	Pleasant Run Creek Tributary at Fort Mitchell, Ky.	Lat 39°03'45", long 84°33'45", Kenton County, at culvert on private road, about 1.2 mi east of the village of Crescent Springs, and at mile 0.2.	1.62	1973-86	05-12-80 04-04-81 04-22-84 11-16-85	1.58 2.12 1.93 3.04	a a a 158
		Gunpowder Creek basin					
03277070	Fowlers Fork at Union, Ky.	Lat 38°56'43", long 84°40'54", Boone County, at culvert on State Highway 536, at Union, 50 ft upstream from unnamed tributary, and at mile 2.7.	1.54	1976-86	11-16-85	7.30	410
		Craigs Creek basin					
03277185	Craigs Creek Tributary near Warsaw, Ky.	Lat 38°44'26", long 84°56'08", Gallatin County, at culvert on State Highway 1130, 3.5 mi southwest of Warsaw, and at mile 0.1.	.68	1976-86	07-12-86	8.26	770
		Kentucky River basin					
03277290	Bottom Fork near Mayking, Ky.	Lat 37°08'24", long 82°45'31", Letcher County, at culvert on U.S. Highway 1195, 0.6 mi northeast of Mayking, and at mile 0.6.	3.03	1976-86	02-18-86	<2.56	<39
03280728	Bull Creek near Hyden, Ky.	Lat 37°10'30", long 83°26'16", Leslie County, at culvert on Daniel Boone Parkway, 400 ft downstream from Davidson Fork, 3.5 mi west Hyden, and at mile 5.4.	1.84	1976-86	02-18-86	8.65	208
03280935	Stamper Fork at Canoe, Ky.	Lat 37°26'24", long 83°26'17", Breathitt County, at culvert on county road, 0.9 mi southeast of Canoe, and at mile 0.04.	1.57	1975-86	02-18-86	85.43	52
03282198	Clear Creek Tributary near West Irvine, Ky.	Lat 37°42'19", long 84°01'26", Estill County, at culvert on State Highway 52, 1.3 mi west of West Irvine, and at mile 0.3.	.59	1975-86	b	<97.76	<10
03283305	Middle Fork Red River at Zachariah, Ky.	Lat 37°42'35", long 83°40'12", Wolfe County, at culvert on State Highway 11, 0.8 mi northeast of Zachariah, 1.4 mi upstream from Chester Creek Tributary on left bank, 3.9 mi south of Natural Bridge State Park, and at mile 14.3.	.58	1975-86	b	<100.50	<80
03283610	Lulbegrud Creek Tributary at Westbend, Ky.	Lat 37°54'56", long 83°58'30", Powell County, at culvert on frontage road, 0.8 mi northwest of Westbend, and at mile 1.0.	.33	1975-86	11-30-86	87.68	38
03285100	Balls Branch Tributary near Danville, Ky.	Lat 37°37'14", long 84°45'01", Boyle County, at culvert on U.S. Highway 150 Bypass, 2.2 mi southeast of Danville, and at mile 0.6.	.13	1976-86	05-28-86	4.95	28
03287128	Tanners Creek at Mortonsville, Ky.	Lat 37°58'23", long 84°45'29", Woodford County, at culvert on State Highway 1965 at Mortonsville, 3.7 mi southwest of Versailles, and at mile 2.8.	1.49	1976-86	11-27-85	4.33	277
03287534	South Benson Creek near Frankfort, Ky.	Lat 38°07'30", long 84°58'32", Franklin County, at culvert on State Highway 151, 6.9 mi southwest of Frankfort, and at mile 12.7.	4.47	1976-86	02-17-86	6.75	295
03289190	Wolf Run at Cambridge Drive at Lexington Ky.	Lat 38°03'11", long 84°33'04", Fayette County, at culvert on Cambridge Drive at Lexington, 0.2 mi above Vaughns Branch, and at mile 1.6.	5.30	1976-86	11-27-85	7.68	760

See footnotes at end of the table.

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Annual maximum discharge at crest-stage partial-record stations--Continued

Station no.	Station name	Location	Drainage area (mi^{2})	Period of record	Annual maximum Date	 Gage height (feet)	 Discharge (ft^{3}/s)
		Kentucky River Basin--Continued					
03290000	Flat Creek near Frankfort, Ky.	Lat 38°17'53", long 84°56'32", Franklin County, on left bank at downstream side of bridge on U.S. Highway 421, 0.4 mi downstream from confluence of Goose Creek and Bald Knob Branch, 7.0 mi northwest of Frankfort, and at mile 9.8.	5.63	1951-71†, 1972-86	05-26-86	10.81	4,230
03290580	Town Creek at New Castle, Ky.	Lat 38°25'23", long 85°10'17", Henry County, at culvert on State Highways 55 and 421, 0.7 mi south of intersection of State Highways 146 and 421, and State Highway 55 in New Castle, and at mile 4.4.	5.62	1976-86	03-13-86	9.36	460
03291050	South Rays Fork Tributary near Corinth, Ky.	Lat 38°27'13", long 84°34'24", Scott County, at culvert on Interstate Highway 75, 3.1 mi south of Corinth, and at mile 0.4.	.58	1976-86	12-13-79 11-28-85	<9.11 12.48	a 270
03291500	Eagle Creek at Glencoe, Ky.	Lat 38°42'18", long 84°49'26", Owen County, on left bank, 600 ft upstream from bridge on U.S. Highway 127, 0.6 mi south of Glencoe, 5.8 mi downstream from Tenmile Creek, and at mile 21.6.	437	1915-16†, 1919-20‡, 1928-31†, 1938-77†, 1978-86	11-11-85	12.88	10,600
		Pattons Creek basin					
03292200	Jeff Branch near Sligo, Ky.	Lat 38°31'11", long 85°22'36", Trimble County, at culvert on State Highway 1488, 4.0 mi northwest of Sligo, and at mile 0.1.	.87	1976-86	06-25-75 04-02-77 05-17-80 04-04-81 03-13-86	10.71 10.01 8.94 9.77 8.44	370 a a a a
		Harrods Creek basin					
03292472	South Fork Harrods Creek near Crestwood, Ky.	Lat 38°20'43", long 85°29'29", Oldham County, at culvert on State Highway 329, 0.1 mi south of the intersection of Interstate Highway 71 and State Highway 329, 1.8 mi northwest of Crestwood, and at mile 5.9.	.97	1975-86	07-12-86	8.75	84
		Salt River basin					
03295845	Bradshaw Creek near Shelbyville, Ky.	Lat 38°10'55", long 35°11'05", Shelby County, at culvert on Interstate 64, 2.8 mi southeast of Shelbyville, and at mile 0.4.	1.36	1976-86	03-13-86	8.74	140
03298535	Elm Lick Creek near Clermont, Ky.	Lat 37°55'30", long 85°37'41", Bullitt County, at culvert on State Highway 245, 200 ft above mouth, 1.4 mi southeast of Clermont.	.68	1976-86	b	<3.83	a
03300065	North Prong near Willisburg, Ky.	Lat 37°47'54", long 85°08'32", Washington County, at culvert on State Highway 53, 1.2 mi southwest of the junction of State Highways 53 and 433 in Willisburg, and at mile 2.3.	1.71	1975-86	11-28-85	14.96	385
03300990	Town Creek Tributary at Bardstown, Ky.	Lat 37°49'30", long 85°27'30", Nelson County, at culvert on road connecting U.S. Highways 31E and 62, 1.2 mi north of courthouse in Bardstown, and at mile 0.4.	.32	1975-86	11-27-85	<14.57	41
03301000	Beech Fork at Bardstown, Ky.	Lat 37°47'49", long 85°28'51", Nelson County at bridge on U.S. Highway 31E. 0.1 mi downstream from Rowan Creek, 1.0 mi southwest of Bardstown, and at mile 20.9.	669	1939-74†, 1975-86	b	<31.00	17,000
		Otter Creek basin					
03302085	Otter Creek Tributary near Vine Grove, Ky.	Lat 37°48'01", long 86°01'42", Hardin County, at State Highway 1600, 0.2 mi above unnamed tributary, 2.6 mi west of Vine Grove, and at mile 17.2.	.90	1975-86	02-07-86	6.67	210
		Green River basin					
03305559	Carpenter Creek Tributary near Hustonville, Ky.	Lat 37°26'21", long 84°50'41", Lincoln County, at culvert on U.S. Highway 127, 2.8 mi southwest of Hustonville, and at mile 0.1.	.88	1976-86	b	<8.78	<160
03305725	Irvin Branch near Salem, Ky.	Lat 37°04'23", long 84°57'58", Russell County, at culvert on Cumberland Parkway, 1.1 mi east of Salem, and at mile 0.8.	1.37	1976-86	11-28-85	15.68	490
03305835	Gum Lick Creek Tributary near Clementsville, Ky.	Lat 37°21'03", long 85°04'17", Casey County, at culvert on county road, 4.5 mi north of Clementsville, and at mile 0.1.	.71	1976-86	09-24-86	3.85	58

See footnotes at end of the table.

Annual Maximum discharge at crest-stage partial-record stations--Continued

					Annual maximum		
Station no.	Station name	Location	Drainage area (miU)	Period of record	Date	Gage height (feet)	Discharge (ft2/s)
		Green River basin--Continued					
03306640	White Oak Creek Tributary near Montpelier, Ky.	Lat 37°03'54", long 85°11'48", Adair County, at culvert on Cumberland Parkway, 3.3 mi north of Montpelier, and at mile 0.4.	0.50	1976-86	b	<8.13	<55
03307670	Prices Creek near Gradyville, Ky.	Lat 37°01'42", long 85°31'03", Metcalfe County, at culvert on Cumberland Parkway, 0.3 mi upstream from Lawrence Creek, 5.7 mi southwest of Gradyville, and at mile 1.7.	2.53	1976-86	11-27-85	4.84	255
03310385	Bacon Creek Tributary near Upton, Ky.	Lat 37°26'15", long 85°53'01", Hart County, culvert on Interstate Highway 65, 0.2 mi south of Larue and Hart county line, and 2.0 mi south of Upton.	.56	1975-86	b	<13.02	<29
03310880	Brier Creek Tributary near Ollie, Ky.	Lat 37°17'41", long 86°11'49", Edmonson County, at culvert on State Highway 1827, 3.1 mi north of Ollie, and at mile 0.4.	.31	1976-86	b	<2.67	<14
03312795	Little Beaver Creek near Glasgow, Ky.	Lat 37°00'36", long 86°01'00", Barren County, at culvert on Cumberland Parkway, 5.7 mi west of Glasgow, and at mile 2.1.	.89	1976-86	02-21-86	7.79	285
03313020	Solomon Creek Tributary near Scottsville, Ky.	Lat 36°49'52", long 86°06'43", Allen County, at culvert on U.S. Highway 31E, 6.9 mi northeast of Scottsville, and at mile 0.9.	.24	1976-86	05-23-86	9.04	142
03314750	Barren River Tributary near Bowling Green, Ky.	Lat 37°00'38", long 86°30'43", Warren County, at culvert on Green River Parkway, 0.3 mi upstream from unnamed tributary, 4.0 mi northwest of Bowling Green, and at mile 2.3.	.50	1976-86	02-18-86	7.03	121
03315885	Poindexter Branch Tributary near Russellville, Ky.	Lat 36°50'25", long 86°51'04", Logan County, at culvert on U.S. Highway 68, 2.0 mi east of Russellville, and at mile 0.9.	.25	1976-86	b	b	b
03317965	Long Lick Creek Tributary near Axtel, Ky.	Lat 37°38'46", long 86°29'57", Breckinridge County, at culvert on State Highway 105, 1.4 mi west of Axtel, and at mile 0.7.	.38	1975-86	05-15-86	16.87	220
03318505	Pleasant Run Tributary near Falls of Rough, Ky.	Lat 37°34'49", long 86°30'49", Grayson County, at culvert on State Highway 79, 2.2 mi east of Falls of Rough, and at mile 0.4.	.22	1975-86	b	b	b
03319520	West Fork Adams Fork near Fordsville, Ky.	Lat 37°41'13", long 86°41'33", Hancock County, at culvert on State Highway 1700, 30 ft upstream from mouth, and 3.8 mi north of Fordsville.	.26	1976-86	02-11-86	5.78	84
03321275	East Fork Deer Creek Tributary near Onton, Ky.	Lat 37°31'29", long 87°28'31", Webster County, at culvert on Pennyrile Parkway, 3.0 mi southwest of Onton, and at mile 0.8.	.95	1976-86	02-21-86	7.55	b
03321465	Rhodes Creek Tributary near Owensboro, Ky.	Lat 37°47'11", long 87°12'22", Davies County, at culvert on U.S. Highway 60, 0.4 mi upstream from unnamed tributary, 3.4 mi west of Owensboro city limits, 3.4 mi southeast of railroad crossing in Stanley, and at mile 3.7.	.29	1975-86	02-21-86	4.05	36
		Tradewater River basin					
03382975	Ward Creek at Lewistown, Ky.	Lat 37°08'34", long 87°48'25", Caldwell County, at culvert on Western Kentucky Parkway, 0.3 mi west of Lewistown, 0.3 mi upstream from unnamed tributary, 4.8 mi northeast of Princeton, and at mile 2.0.	.91	1975-86	05-15-86	15.14	237
03383605	West Fork Donaldson Creek near Fredonia, Ky.	Lat 37°15'08", long 87°59'25", Caldwell County, at culvert on State Highway 902, 0.7 mi upstream from Spring Branch, 6.1 mi northeast of Fredonia, and at mile 4.8.	2.52	1975-86	03-12-86	13.95	420
		Cumberland River basin					
03400700	Clover Fork at Evarts, Ky.	Lat 36°51'56", long 83°11'37", Harlan County, at bridge on State Highway 215, at Evarts just below Yocum Creek, and at mile 10.6.	82.4	1959-86	02-18-86	5.64	3,010
03402020	Shilalah Creek near Page, Ky.	Lat 36°39'54", long 83°35'23", Bell County, at culvert on State Highway 217, 4.3 mi southeast of Page, and at mile 0.2.	2.96	1976-86	08-20-86	56.23	341

See footnotes at end of the table.

Annual Maximum discharge at crest-stage partial-record stations--Continued

					Annual maximum		
Station no.	Station name	Location	Drainage area (miU)	Period of record	Date	Gage height (feet)	Dis-charge (ftZ/s)
Cumberland River basin--Continued							
03406000	Wood Creek near London, Ky.	Lat 37°09'40", long 84°06'43", Laurel County, on left bank, 50 ft downstream from bridge on U.S. Highway 25, 0.2 mi upstream from Peacock Branch, 2.8 mi northwest of London, and at mile 12.9.	3.89	1953-71†, 1972-86	02-18-86	5.35	362
03407100	Cane Branch near Parkers Lake, Ky.	Lat 36°52'05", long 84°26'57", McCreary County, on left bank, 2,100 ft upstream from West Fork, 2.5 mi northeast of Parkers Lake, 2.6 mi east of Greenwood, and at mile 0.9.	.67	1956-66†, 1967-72, 1973-74†, 1975-86	02-18-86	1.27	42
03407200	West Fork Cane Branch near Parkers Lake, Ky.	Lat 36°51'49", long 84°27'08", McCreary County, on right bank, 2.2 mi northeast of Parkers Lake, and at mile 1.0.	.26	1956-86	02-18-86	1.01	20
03407300	Helton Branch at Greenwood, Ky.	Lat 36°53'07", long 84°28'55", McCreary County, on left bank, 1.0 mi northeast of Greenwood, and at mile 0.1.	.85	1956-74†, 1975-86	02-18-86	1.04	22
03413202	Elk Spring Creek near Spann, Ky.	Lat 36°50'53", long 85°47'24", Wayne County, at culvert on State Highway 1275, 1.1 mi west of Spann, 3.5 mi northeast of Monticello, and at mile 7.1.	.57	1976-86	02-18-86	4.30	68
03413425	Williams Creek Tributary near Cartwright, Ky.	Lat 36°44'58", long 85°04'44", Clinton County, at culvert on State Highway 90, 0.2 mi south of Cartwright, and at mile 0.1.	.76	1976-86	02-18-86	7.75	135
03414102	Bear Creek near Burkesville, Ky.	Lat 36°46'14", long 85°16'30", Cumberland County, at culvert on State Highway 90, just downstream from unnamed tributary, 5.3 mi east of Burkesville, and at mile 6.1.	3.52	1976-86	02-18-86	7.94	252
03437380	Elbow Creek Tributary near Canton, Ky.	Lat 36°47'32", long 88°00'23", Trigg County, at culvert on U.S. Highway 68, 2.5 mi southwest of Canton, and at mile 0.2.	.83	1975-86	b	b	b
03437390	Lick Creek near Canton, Ky.	Lat 36°46'42", long 87°55'47", Trigg County, at culvert on State Highway 164, 1.6 mi upstream from Lake Barkley, 2.3 mi southeast of Canton, and at mile 3.8.	.39	1975-86	b	b	b
03437490	South Fork Little River Tributary near Hopkinsville, Ky.	Lat 36°51'30", long 87°25'41", Christian County, at culvert on U.S. Highway 68, 2.6 mi east of Hopkinsville, and at mile 0.8.	2.62	1977-86	02-03-86	14.51	120
03438120	North Fork Dryden Creek Tributary near Confederate, Ky.	Lat 36°57'38", long 87°59'53", Lyon County, at culvert on State Highway 274, 2.2 mi south of Confederate, and at mile 0.2.	.10	1975-86	b	b	b
Tennessee River basin							
03610470	York Creek near Benton, Ky.	Lat 36°50'51", long 88°17'15", Marshall County, at culvert on State Highway 1897, 1.3 mi upstream from Elizabeth Creek, 3.6 mi east of Benton, and at mile 1.4.	.96	1975-86	03-12-86	14.64	161
03610503	Chestnut Creek near Benton, Ky.	Lat 36°54'38", long 88°20'24", Marshall County, at culvert on U.S. Highway 641, 0.7 mi south of Draftenville, 1.0 mi upstream from Dam on Chestnut Creek, 3.5 mi north of Benton, and at mile 4.7.	.82	1975-86	09-05-85 02-03-86	17.91 16.42	1,350* 1,040
03610820	Clarks River Tributary near Reidland, Ky.	Lat 36°59'37", long 88°31'13", McCracken County, at culvert on Interstate Highway 24, 0.8 mi west of I-24 and U.S. Highway 68 interchange, 1.6 mi southeast of Reidland, and at mile 1.0.	.13	1975-86	03-12-86	5.54	28
Mayfield Creek basin							
07022500	Perry Creek near Mayfield, Ky.	Lat 36°40'45", long 88°37'57", Graves County, on right bank, 30 ft upstream from bridge on State Highway 303, 3.5 mi south of city limits of Mayfield, and at mile 2.0.	1.72	1952-65†, 1967-72†, 1973-86	05-24-86	5.04	360
07023040	Lick Creek Tributary near Kirbyton, Ky.	Lat 36°51'31", long 88°52'19", Carlisle County, at culvert on county road, 0.2 mi upstream from unnamed tributary, 1.3 mi northwest of Kirbyton, and at mile 1.6.	.53	1975-86	b	b	b

See footnotes at end of the table

DISCHARGE AT PARTIAL-RECORD STATIONS

Annual Maximum discharge at crest-stage partial-record stations--Continued

					Annual maximum		
Station no.	Station name	Location	Drainage area (miU)	Period of record	Date	Gage height (feet)	Dis- charge (ftZ/s)
		Bayou de Chien basin					
07023935	South Fork Bayou de Chien Tributary at Water Valley, Ky.	Lat 36°34'18", long 88°49'40", Hickman County, at culvert on Purchase Parkway, 0.5 mi northeast of county road 1529 bridge crossing Parkway, 1.0 mi northwest of Water Valley, and at mile 1.2.	0.23	1975-86	02-04-86	14.11	18

* Revised.
† operated as a continuous-record gaging station.
‡ Gage heights only.
a Stage-discharge relation not determined. Discharge to be published at a later date.
b Unknown.
c Levels of high-water mark.

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03208000 - LEVISA FORK BELOW FISHTRAP DAM, KY (LAT 37 25 33 LONG 082 24 45)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
17...	1500	148	19.0	780
JAN 1986				
02...	1545	215	2.5	--
MAR				
05...	1340	667	4.0	--
APR				
15...	1540	59	15.0	650
MAY				
15...	1425	1180	17.5	460
JUL				
08...	1325	69	24.0	450
AUG				
13...	1415	45	23.0	600
SEP				
10...	1345	66	24.0	700

03209300 - RUSSELL FORK AT ELKHORN CITY, KY (LAT 37 18 14 LONG 082 20 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
17...	1305	118	14.5	460
JAN 1986				
02...	1355	161	3.0	--
MAR				
05...	1100	720	5.0	350
APR				
15...	1300	180	14.5	455
MAY				
15...	1020	646	16.0	180
JUL				
08...	1105	129	22.0	380
AUG				
13...	1220	118	18.5	420
SEP				
10...	1145	172	17.0	360

03209500 - LEVISA FORK AT PIKEVILLE, KY (LAT 37 27 51 LONG 82 31 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
08...	1020	393	15.0	650
NOV				
21...	1245	558	14.0	520
JAN 1986				
16...	1330	481	2.0	530
MAR				
04...	1400	1600	5.0	375
APR				
01...	1100	659	14.0	460
MAY				
15...	1605	2530	18.0	430
JUL				
07...	1435	230	23.0	410
AUG				
14...	1055	196	23.0	480
SEP				
30...	1200	502	17.5	410

03210000 - JOHNS CREEK NEAR META, KY (LAT 37 34 01 LONG 082 27 29)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
10...	1220	4.0	16.0	880
NOV				
15...	1115	22	16.0	650
JAN 1986				
06...	1540	20	2.5	--
MAR				
04...	1720	78	6.0	360
APR				
01...	1250	28	16.0	550
MAY				
02...	1210	14	15.0	640
JUL				
07...	1215	4.5	26.5	780
AUG				
14...	1205	2.6	24.5	920
SEP				
30...	1500	17	23.5	580

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
03211500 - JOHNS CREEK NEAR VAN LEAR, KY (LAT 37 44 37 LONG 082 43 27)				
OCT 1985				
04...	1430	46	21.0	310
NOV				
14...	1310	226	13.0	260
JAN 1986				
30...	1330	281	2.5	--
MAR				
27...	1055	12	10.0	250
MAY				
05...	1055	9.4	11.5	240
JUN				
16...	1415	15	17.0	--
AUG				
15...	1340	9.9	20.0	360
SEP				
11...	1250	12	20.0	360
03212500 - LEVISA FORK AT PAINTSVILLE, KY (LAT 37 48 55 LONG 82 47 30)				
OCT 1985				
07...	1145	652	12.0	660
NOV				
20...	1045	882	14.0	480
FEB 1986				
28...	1515	4600	4.5	425
APR				
10...	1435	634	13.5	430
JUN				
18...	1355	321	18.0	480
AUG				
26...	1745	485	23.5	500
03216350 - LITTLE SANDY RIVER BELOW GRAYSON DAM NEAR LEON, KY (LAT 38 15 14 LONG 082 59 28)				
OCT 1985				
02...	1150	44	19.5	320
APR 1986				
09...	1140	32	14.0	240
APR				
30...	1430	41	20.0	230
MAY				
07...	1305	30	21.0	245
JUN				
19...	1200	36	21.0	260
SEP				
09...	1250	38	22.0	270
03216500 - LITTLE SANDY RIVER AT GRAYSON, KY (LAT 38 19 48 LONG 082 56 22)				
OCT 1985				
02...	1440	50	15.0	350
APR 1986				
07...	1425	113	18.0	255
MAY				
07...	1420	69	20.5	270
JUN				
20...	1100	72	20.0	280
AUG				
08...	1130	53	23.0	320
SEP				
16...	1150	45	18.5	335

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03216540 - EAST FORK LITTLE SANDY RIVER NEAR FALLSBURG, KY (LAT 38 14 01 LONG 082 42 32)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985 21...	1210	8.1	16.0	250
DEC 31...	1545	2.9	1.5	150
MAR 1986 03...	1205	12	5.5	150
APR 02...	1245	3.7	16.0	210
MAY 12...	1230	4.1	23.0	150
JUL 09...	1210	0.05	29.0	150
AUG 22...	1105	0.02	24.0	85

03216800 - TYGARTS CREEK AT OLIVE HILL, KY (LAT 38 17 57 LONG 083 10 25)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985 03...	1310	2.6	15.5	360
DEC 16...	1410	97	2.5	175
MAR 1986 03...	1640	57	5.5	--
APR 07...	1200	25	17.5	210
MAY 14...	1320	1160	22.5	125
JUN 20...	1340	6.0	26.0	290
AUG 08...	1340	0.48	27.5	370
SEP 16...	1350	0.63	22.5	310

03217000 - TYGARTS CREEK NEAR GREENUP, KY (LAT 38 33 51 LONG 082 57 08)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985 22...	1530	768	16.0	--
DEC 16...	1215	567	4.0	--
JAN 1986 09...	1115	50	0.5	250
FEB 18...	1045	3700	--	180
APR 08...	1050	92	17.5	230
MAY 13...	1510	853	24.0	275
MAY 26...	1720	170	21.0	200
AUG 07...	1315	4.3	23.5	195
SEP 17...	1200	10	17.5	280

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03237900 - CABIN CREEK NEAR TOLLESBORO, KY (LAT 38 34 04 LONG 083 32 14)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
08...	1800	0.05	16.0	470
NOV				
14...	1015	31	16.0	350
DEC				
19...	1500	9.1	0.5	--
JAN 1986				
30...	1710	6.2	0.0	--
MAR				
11...	1525	10	13.0	385
APR				
22...	1520	8.9	10.5	405
JUN				
03...	1420	1.0	21.0	405
JUL				
16...	0800	2.1	23.5	420

03248500 - LICKING RIVER NEAR SALYERSVILLE, KY (LAT 37 45 03 LONG 083 05 04)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
01...	0915	8.2	15.5	2200
JAN 1986				
13...	1450	33	0.5	1850
MAR				
31...	1400	65	16.0	1080
MAY				
06...	1520	22	21.0	1930
JUN				
17...	1530	22	19.5	1080
JUL				
31...	1535	7.1	25.0	1250
SEP				
11...	0940	2.2	19.0	1090
SEP				
15...	1230	8.1	18.5	1070

03249500 - LICKING RIVER AT FARMERS, KY (LAT 38 06 55 LONG 083 32 36)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
08...	0835	249	18.5	235
NOV				
13...	0830	242	14.5	225
DEC				
18...	1050	3990	9.0	285
JAN 1986				
30...	1140	972	3.5	220
MAR				
11...	0845	512	6.5	230
APR				
21...	1600	59	13.0	190
JUN				
02...	1604	130	17.5	200
AUG				
25...	1450	68	22.5	215

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03250100 - NORTH FORK TRIPLETT CREEK NEAR MOREHEAD, KY (LAT 38 11 57 LONG 083 28 50)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
07...	1800	0.46	12.5	160
NOV				
13...	1425	328	14.5	80
JAN 1986				
29...	1230	62	0.5	94
MAR				
10...	1315	76	9.5	85

03251000 - NORTH FORK LICKING RIVER NEAR LEWISBURG, KY (LAT 38 32 57 LONG 083 47 37)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
08...	1500	0.57	14.0	450
NOV				
13...	1800	453	14.0	420
DEC				
18...	1555	89	0.5	350
MAR 1986				
11...	1335	63	10.5	395
APR				
22...	1250	59	13.0	360
JUN				
03...	1100	9.7	18.5	260
JUL				
15...	1530	9.2	26.0	340
AUG				
26...	1020	0.06	19.5	370

03251500 - LICKING RIVER AT MCKINNEYSBURG, KY (LAT 38 35 52 LONG 084 16 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
11...	1200	249	17.5	270
NOV				
22...	1200	1170	11.5	375
JAN 1986				
23...	1430	1390	4.0	350
MAR				
18...	1630	3980	11.0	320
APR				
24...	1530	917	12.0	400
JUN				
05...	1520	402	18.5	400
JUL				
21...	1323	264	29.0	205
AUG				
28...	1610	96	24.0	260

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (FT^3/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
03252000 - STONER CREEK AT PARIS, KY (LAT 38 13 45 LONG 084 15 22)				
OCT 1985				
04...	1200	20	15.0	585
DEC				
09...	1256	120	6.0	--
JAN 1986				
23...	0915	87	4.0	490
MAR				
06...	1040	122	5.0	460
APR				
24...	1400	45	14.0	420
JUN				
03...	0840	15	21.0	380
JUL				
11...	0820	7.6	26.0	545
AUG				
26...	1255	2.0	31.0	660
03252500 - SOUTH FORK LICKING RIVER AT CYNTHIANA, KY (LAT 38 23 27 LONG 084 18 11)				
OCT 1985				
09...	1530	9.1	--	465
NOV				
15...	1110	330	15.5	400
DEC				
23...	1230	297	3.5	--
JAN 1986				
22...	1350	163	4.0	440
MAR				
12...	1215	457	10.5	460
APR				
23...	1720	176	14.5	470
JUN				
04...	1110	46	23.5	415
JUL				
21...	1115	44	30.0	410
AUG				
27...	1100	2.4	26.0	730
03253500 - LICKING RIVER AT CATAWBA, KY (LAT 38 42 37 LONG 084 18 39)				
OCT 1985				
11...	1150	234	17.0	280
NOV				
21...	1230	2080	12.0	350
DEC				
20...	1200	5320	7.0	--
JAN 1986				
24...	1100	1940	4.5	400
MAR				
17...	1215	7070	10.0	305
APR				
24...	0950	950	12.5	405
JUN				
05...	1125	426	19.5	425
JUL				
22...	1500	226	29.5	400
AUG				
28...	1300	107	24.5	280

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
03277450 - CARR FORK NEAR SASSAFRAS, KY (LAT 37 13 52 LONG 083 12 10)				
OCT 1985				
03...	1445	42	16.0	340
NOV				
20...	1230	45	14.0	360
JAN 1986				
08...	1215	12	4.5	330
FEB				
21...	1510	748	4.0	300
APR				
02...	1025	8.3	12.0	325
MAY				
15...	1012	11	16.0	340
JUN				
25...	1315	3.7	23.5	355
AUG				
14...	1030	5.9	11.5	320
03277500 - NORTH FORK KENTUCKY RIVER AT HAZARD, KY (LAT 37 14 48 LONG 083 10 55)				
OCT 1985				
04...	1425	168	17.5	580
NOV				
20...	1510	193	14.0	470
JAN 1986				
08...	1700	112	1.0	490
FEB				
25...	1100	1300	5.5	330
APR				
03...	0900	241	16.5	485
MAY				
15...	1525	1480	23.0	220
JUN				
25...	1555	91	29.0	610
AUG				
13...	1532	87	25.0	510
03280000 - NORTH FORK KENTUCKY RIVER AT JACKSON, KY (LAT 37 32 46 LONG 083 22 21)				
OCT 1985				
02...	1600	724	15.0	600
NOV				
19...	1630	512	15.0	510
JAN 1986				
07...	1510	373	2.0	530
FEB				
19...	1450	13000	9.0	205
APR				
01...	1300	621	16.5	500
MAY				
14...	1600	1720	22.0	200
JUN				
25...	1005	112	25.5	700
AUG				
13...	1120	310	24.0	775

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03280600 - MIDDLE FORK KENTUCKY RIVER NEAR HYDEN, KY (LAT 37 08 13 LONG 083 22 17)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
07...	1545	17	16.5	440
NOV				
21...	1415	63	13.5	320
JAN 1986				
09...	1330	42	3.0	240
FEB				
24...	1315	449	7.0	205
APR				
03...	1335	107	15.0	320
MAY				
16...	1302	261	19.5	170
JUN				
26...	1320	4.0	29.5	360
AUG				
15...	1435	8.7	--	300

03280700 - CUTSHIN CREEK AT WOOTON, KY (LAT 37 09 54 LONG 083 18 29)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
07...	1300	4.2	14.0	500
NOV				
21...	1130	18	11.0	355
JAN 1986				
09...	1130	11	1.0	345
FEB				
24...	1515	117	6.5	240
APR				
03..	1115	31	15.0	300
MAY				
16...	1040	88	18.0	175
JUN				
26...	1100	3.0	24.5	460
AUG				
14...	1330	4.3	26.5	410

03281000 - MIDDLE FORK KENTUCKY RIVER AT TALLEGA, KY (LAT 37 33 18 LONG 083 35 38)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
01...	1530	73	11.0	280
NOV				
18...	1405	467	14.0	230
JAN 1986				
06...	1450	195	2.5	235
FEB				
20...	1320	3180	7.5	160
MAR				
31...	1430	180	15.0	200
MAY				
13...	1400	53	22.0	340
JUN				
24...	1420	41	26.0	315
AUG				
12...	1105	62	23.5	300

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
03281040 - RED BIRD RIVER NEAR BIG CREEK, KY (LAT 37 10 43 LONG 083 35 35)				
OCT 1985				
01...	1305	151	16.0	415
NOV				
18...	1125	96	14.0	200
JAN 1986				
08...	1154	45	0.5	238
FEB				
26...	1208	256	5.0	210
APR				
03...	1335	81	16.0	280
MAY				
13...	1200	37	21.5	--
JUN				
25...	1035	3.5	24.5	525
AUG				
18...	1625	54	24.0	340
03281100 - GOOSE CREEK AT MANCHESTER, KY (LAT 37 09 07 LONG 083 45 37)				
OCT 1985				
01...	1040	103	17.0	420
NOV				
18...	1346	139	15.0	218
JAN 1986				
08...	1627	48	1.0	250
FEB				
26...	1530	242	6.0	190
APR				
03...	1100	73	16.0	260
MAY				
13...	1200	20	21.5	--
JUN				
25...	1315	2.7	24.5	440
AUG				
19...	1320	20	24.0	360
03281500 - SOUTH FORK KENTUCKY RIVER AT BOONEVILLE, KY (LAT 37 28 45 LONG 083 40 38)				
OCT 1985				
02...	1130	284	16.5	400
NOV				
19...	1140	492	15.0	265
JAN 1986				
07...	1120	238	2.0	280
FEB				
18...	1645	16900	9.0	110
APR				
01...	1040	362	15.5	245
MAY				
14...	1037	117	23.0	335
JUN				
24...	1209	27	27.0	340
AUG				
12...	1545	9.7	25.5	415
03282000 - KENTUCKY RIVER AT LOCK 14 AT HEIDELBERG, KY (LAT 37 33 19 LONG 083 46 06)				
JUN 1986				
23...	1315	210	26.0	630
AUG				
11...	1615	61	26.5	640

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
03282500 - RED RIVER NEAR HAZEL GREEN, KY (LAT 37 48 44 LONG 083 27 50)				
OCT 1985 15...	1255	1.1	21.0	170
DEC 10...	0954	51	6.0	100
JAN 1986 13...	0930	19	0.0	115
MAR 06...	1120	60	3.5	100
APR 16...	1020	9.0	11.5	110
MAY 08...	1250	13	22.0	110
JUL 03...	1435	7.1	24.0	--
AUG 12...	1150	0.27	25.5	--
03283500 - RED RIVER AT CLAY CITY, KY (LAT 37 51 53 LONG 083 56 01)				
OCT 1985 15...	1624	17	20.5	325
DEC 09...	1607	265	6.5	170
JAN 1986 24...	1155	376	2.0	--
MAR 06...	1400	348	5.0	170
MAR 21...	1510	377	7.0	150
APR 21...	1100	166	13.0	230
MAY 16...	1505	207	21.5	210
AUG 01...	1200	22	24.0	--
SEP 19...	0955	27	20.5	230
03284000 - KENTUCKY RIVER AT LOCK 10, NEAR WINCHESTER, KY (LAT 37 53 41 LONG 084 15 44)				
NOV 1985 19...	1145	2130	15.5	335
DEC 11...	1155	2370	9.0	260
MAR 1986 25...	1305	3230	10.0	255
APR 22...	0940	1390	15.0	420
JUN 13...	1005	1420	24.0	455
JUL 17...	0955	1000	26.0	380
AUG 26...	1055	403	26.0	580

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
03285000 - DIX RIVER NEAR DANVILLE, KY (LAT 37 38 31 LONG 084 39 39)				
OCT 1985				
16...	1100	2.2	19.5	220
DEC				
10...	1419	144	7.0	180
FEB 1986				
20...	1323	1010	11.5	285
MAR				
06...	1600	186	7.0	335
APR				
23...	1515	105	15.0	295
MAY				
28...	1145	612	19.5	300
JUL				
10...	0910	4.8	27.0	330
AUG				
26...	1400	14	23.0	190
SEP				
15...	1250	41	20.0	270
03287000 - KENTUCKY RIVER AT LOCK 6 NEAR SALVISA, KY (LAT 37 55 32 LONG 084 49 17)				
OCT 1985				
01...	0945	809	19.0	480
NOV				
14...	0945	2470	13.5	285
DEC				
17...	1000	9470	6.5	275
JAN 1986				
17...	0955	1140	2.5	315
MAR				
04...	1450	7140	6.5	280
APR				
18...	0905	1090	15.0	430
JUN				
26...	1115	320	26.0	500
JUL				
16...	1020	1490	25.5	425
SEP				
10...	1005	966	21.0	415
03287500 - KENTUCKY RIVER AT LOCK 4 AT FRANKFORT, KY (LAT 38 12 06 LONG 084 52 54)				
OCT 1985				
03...	1205	555	19.0	370
NOV				
18...	1445	4760	15.5	375
DEC				
10...	1220	4770	11.0	260
MAR 1986				
03...	1520	7270	6.5	270
APR				
21...	1605	1220	15.5	290
JUN				
12...	1040	2200	25.5	590
JUL				
14...	1115	1640	26.5	375
AUG				
25...	1200	660	26.0	440

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
03289000 - SOUTH ELKHORN CREEK AT FORT SPRING, KY (LAT 38 02 35 LONG 084 37 35)				
OCT 1985				
07...	1150	4.2	11.0	680
NOV				
12...	1111	32	17.5	410
DEC				
17...	1020	42	6.5	430
JAN 1986				
21...	1355	9.7	5.5	535
MAR				
05...	1410	15	6.5	460
APR				
24...	1030	9.8	13.0	480
JUN				
03...	1215	5.5	20.0	480
JUL				
10...	1420	27	23.0	410
AUG				
25...	1500	2.7	24.0	660
03289300 - SOUTH ELKHORN CREEK NEAR MIDWAY, KY (LAT 38 08 27 LONG 084 38 43)				
OCT 1985				
01...	1120	140	16.0	820
NOV				
20...	1030	108	16.5	600
DEC				
17...	1305	192	8.0	500
JAN 1986				
22...	1050	59	5.0	610
MAR				
05...	1030	87	6.5	605
APR				
25...	0955	57	13.5	610
JUN				
02...	1500	50	22.0	725
JUL				
11...	1205	141	23.0	475
AUG				
25...	1445	40	23.5	770
03292460 - HARRODS CREEK NEAR LA GRANGE, KY (LAT 38 26 50 LONG 085 24 33)				
DEC 1985				
17...	1100	18	1.5	520
FEB 1986				
06...	1120	56	7.0	460
MAR				
12...	0955	27	8.0	490
APR				
28...	1005	4.7	19.0	490
JUN				
04...	1305	0.82	21.0	540
JUL				
23...	0850	0.38	24.0	535
AUG				
25...	1230	0.0	19.0	500

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
03295890 - BRASHEARS CREEK AT TAYLORSVILLE, KY (LAT 38 02 13 LONG 085 20 27)				
OCT 1985				
21...	1305	11	18.0	380
DEC				
19...	1130	128	0.5	220
FEB 1986				
18...	1300	1240	7.5	400
MAR				
10...	0950	93	9.5	300
MAY				
01...	1020	24	19.0	360
JUN				
02...	1230	42	21.0	440
JUL				
24...	0935	21	26.0	420
AUG				
27...	1140	3.3	23.0	400
03297845 - FLOYDS FORK NEAR CRESTWOOD, KY (LAT 38 17 55 LONG 085 25 36)				
OCT 1985				
18...	1154	0.01	19.0	380
DEC				
23...	1339	18	1.0	610
FEB 1986				
06...	1430	151	8.0	460
MAR				
12...	1345	1780	8.0	230
APR				
28...	1330	4.1	19.0	510
JUN				
04...	1010	1.7	21.0	520
JUL				
23...	1300	0.89	26.5	465
AUG				
25...	1045	0.06	19.0	430

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03298000 - FLOYDS FORK AT FISHERVILLE, KY (LAT 38 11 18 LONG 085 27 37)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT^3/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
23...	1337	29	17.0	410
DEC				
18...	1241	81	0.0	480
FEB 1986				
05...	1350	1890	11.0	295
MAR				
10...	1215	44	11.0	520
MAY				
01...	1320	14	22.0	450
JUN				
02...	1435	16	22.0	480
JUL				
24...	1255	6.9	29.0	490
AUG				
27...	1415	0.36	22.0	350

03299000 - ROLLING FORK NEAR LEBANON, KY (LAT 37 29 50 LONG 085 19 26)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT^3/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
10...	0925	9.5	17.0	400
NOV				
22...	0940	90	12.0	375
DEC				
19...	0940	122	1.0	320
JAN 1986				
24...	1115	56	4.0	395
FEB				
27...	1215	213	7.5	315
APR				
11...	0925	58	15.0	320
MAY				
30...	0935	520	22.5	340
JUL				
03...	0825	27	24.5	245
AUG				
13...	0930	0.19	21.5	360

03300400 - BEECH FORK AT MAUD, KY (LAT 37 49 58 LONG 085 17 46)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT^3/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
17...	0950	136	16.5	320
DEC				
20...	1104	191	0.5	410
FEB 1986				
07...	1210	6690	9.5	245
MAR				
13...	1245	12000	13.0	185
APR				
30...	1000	46	19.0	560
JUN				
03...	1100	35	21.0	520
JUL				
16...	1315	445	34.0	450
AUG				
26...	1100	0.54	23.0	340

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03301500 - ROLLING FORK NEAR BOSTON, KY (LAT 37 46 02 LONG 085 42 14)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
03...	1200	65	14.0	220
DEC				
18...	1400	1180	2.0	370
JAN 1986				
30...	1255	252	1.0	450
MAR				
11...	1100	672	9.0	450
APR				
29...	1110	247	18.0	390
JUN				
12...	1125	1350	20.0	375
JUL				
17...	1520	739	34.0	390
AUG				
28...	1430	22	21.0	250

03302000 - POND CREEK NEAR LOUISVILLE, KY (LAT 38 07 11 LONG 085 47 45)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
23...	0952	21	16.5	625
DEC				
16...	1340	45	4.0	610
JAN 1986				
21...	1120	55	3.0	595
MAR				
11...	1340	31	12.0	640
APR				
29...	1445	13	21.0	740
JUN				
10...	1430	21	25.0	620
JUL				
15...	0945	1270	23.5	195
JUL				
17...	1040	37	34.0	660
AUG				
28...	1025	15	19.0	540

03306000 - GREEN RIVER NEAR CAMPBELLSVILLE, KY (LAT 37 14 25 LONG 085 20 50)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
09...	1325	76	21.0	145
NOV				
21...	1345	1590	14.5	145
DEC				
18...	1225	4190	6.0	110
JAN 1986				
23...	1145	79	4.5	155
FEB				
26...	1250	2740	6.0	170
APR				
10...	1300	71	14.5	145
MAY				
29...	1225	25	22.0	160
JUL				
02...	1300	90	24.0	155
AUG				
13...	1235	82	23.5	150

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03307000 - RUSSELL CREEK NEAR COLUMBIA, KY (LAT 37 07 09 LONG 085 23 38)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
09...	0915	27	14.0	280
NOV				
21...	0930	118	11.5	245
DEC				
19...	1125	150	1.0	230
JAN 1986				
23...	0250	61	6.0	250
FEB				
26...	1045	201	6.5	235
APR				
10...	0805	66	13.0	235
MAY				
23...	0310	41	16.5	310
JUL				
02...	0815	168	24.0	260
AUG				
14...	1115	19	26.0	255
AUG				
19...	1050	48	26.0	295
SEP				
04...	1050	39	22.5	325
SEP				
15...	1050	33	19.5	235

03308500 - GREEN RIVER AT MUNFORDVILLE, KY (LAT 37 16 05 LONG 085 53 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
07...	1220	640	16.0	265
NOV				
19...	1125	2000	18.0	250
JAN 1986				
22...	1040	491	6.5	395
FEB				
24...	1115	4660	6.0	225
APR				
18...	1220	626	21.0	375
MAY				
21...	1240	736	17.5	395
JUN				
30...	1240	362	26.5	450
AUG				
12...	0925	354	23.0	360

03310300 - NOLIN RIVER AT WHITE MILLS, KY (LAT 37 33 03 LONG 086 02 43)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
11...	1225	52	17.0	500
NOV				
26...	0920	243	13.0	375
JAN 1986				
30...	0955	133	2.0	390
FEB				
28...	1225	487	8.5	365
APR				
14...	0900	189	15.5	440
MAY				
27...	1225	569	18.0	560
JUL				
08...	1310	105	24.0	525
AUG				
20...	1235	65	23.0	535

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
03310400 - BACON CREEK NEAR PRICEVILLE, KY (LAT 37 21 31 LONG 085 59 53)				
OCT 1985				
11...	0840	7.0	15.5	365
NOV				
26...	1140	16	13.5	355
FEB 1986				
28...	0845	51	6.0	375
APR				
14...	1110	24	16.5	355
MAY				
27...	0830	71	16.5	355
JUL				
08...	0915	12	23.0	415
AUG				
20...	0835	7.2	20.5	365
03311000 - NOLIN RIVER AT KYROCK, KY (LAT 37 16 42 LONG 086 14 51)				
OCT 1985				
08 ...	1240	433	22.0	205
FEB 1986				
26...	1535	572	8.0	285
APR				
11...	1135	47	15.0	300
MAY				
19...	1500	909	12.0	260
JUL				
08...	1000	220	19.5	310
AUG				
12...	1200	125	21.0	310
03311500 - GREEN RIVER AT LOCK 6, AT BROWNSVILLE, KY (LAT 37 12 25 LONG 086 15 40)				
OCT 1985				
08...	1420	1150	18.0	290
NOV				
20...	1045	6310	14.0	275
NOV				
21...	0915	2980	14.0	275
FEB 1986				
26...	1125	4850	8.0	230
APR				
10...	0810	896	15.0	180
JUL				
09...	0847	538	25.0	355
AUG				
11...	1500	489	26.5	275
03311600 - BEAVERDAM CkEEK AT RHODA, KY (LAT 37 09 18 LONG 086 13 35)				
OCT 1985				
08...	0740	2.2	11.5	210
NOV				
20...	0735	4.1	14.0	195
DEC				
20...	0800	7.1	3.0	150
JAN 1986				
29...	0910	2.6	1.0	175
FEB				
25...	0810	8.7	6.0	170
APR				
09...	0740	3.4	13.0	190
MAY				
22...	0850	1.3	13.5	210
JUL				
01...	0735	1.2	22.0	--
AUG				
15...	0745	0.58	21.5	230

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
03313000 - BARREN RIVER NEAR FINNEY, KY. (LAT 36 53 42 LONG 086 08 02)				
NOV 1985				
21...	1300	2490	9.5	285
JAN 1986				
07...	1115	344	1.0	300
FEB				
28...	1111	3670	8.0	--
APR				
15...	1120	130	14.0	230
MAY				
22...	1105	62	20.0	150
JUL				
10...	0930	125	20.5	290
AUG				
12...	1600	59	23.0	260
03313700 - WEST FORK DRAKES CREEK NEAR FRANKLIN, KY (LAT 36 43 24 LONG 086 33 08)				
OCT 1985				
09...	1525	309	18.0	260
NOV				
21...	1250	36	13.5	375
JAN 1986				
07...	0830	23	34.0	400
FEB				
26...	1030	122	2.5	395
APR				
09...	1125	46	17.0	405
MAY				
20...	1230	51	19.0	380
JUN				
25...	0855	33	21.0	400
AUG				
06...	1000	2.7	27.0	395
SEP				
17...	1530	1.0	25.0	--
03314500 - BARREN RIVER AT BOWLING GREEN, KY (LAT 37 00 04 LONG 086 25 51)				
NOV 1985				
20...	1300	2660	16.0	290
FEB 1986				
27...	1235	4420	9.0	240
APR				
14...	1235	362	19.0	360
MAY				
21...	1300	425	20.0	360
JUL				
09...	1520	281	30.0	320
AUG				
13...	1000	125	27.0	320
03315500 - GREEN RIVER AT LOCK 4 AT WOODBURY, KY (LAT 37 10 56 LONG 086 3[illegible] 48)				
OCT 1985				
10...	1100	2410	18.0	--
JAN 1986				
08...	1000	2090	1.0	300
FEB				
25...	1450	15700	7.5	280
APR				
08...	1040	1870	18.0	360
MAY				
20...	1340	2430	19.0	370
JUN				
24...	1435	1850	25.5	320
AUG				
07...	1115	641	27.0	400
SEP				
17...	1130	4180	21.0	300

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03318500 - ROUGH RIVER AT FALLS OF ROUGH, KY (LAT 37 35 20 LONG 086 33 05)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985 08...	1000	163	17.0	350
NOV 19...	1030	1310	9.5	250
JAN 1986 07...	1100	88	2.0	180
FEB 24...	1235	2720	6.0	--
APR 07...	1240	82	15.5	265
MAY 23...	1047	31	17.0	250
JUL 08...	1420	57	20.0	230
AUG 13...	1400	59	27.0	255

03318800 - CANEY CREEK NEAR HORSE BRANCH, KY (LAT 37 27 50 LONG 086 39 20)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
NOV 1985 18...	1330	227	17.0	120
JAN 1986 06...	1130	20	0.5	200
MAR 04...	1240	47	7.0	160
APR 10...	1150	12	17.0	160
JUN 02...	1245	24	25.0	170
JUL 07...	1200	2.2	31.5	180
AUG 18...	1052	0.52	29.5	135

03319000 - ROUGH RIVER NEAR DUNDEE, KY (LAT 37 32 51 LONG 086 43 18)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985 08...	1100	152	14.5	--
NOV 18...	1200	1430	15.0	175
JAN 1986 06...	0930	139	1.0	200
FEB 25...	1445	2750	8.0	--
APR 08...	1105	146	19.0	245
MAY 23...	1505	88	18.0	260
JUL 07...	1600	81	28.0	200

03320000 - GREEN RIVER AT LOCK 2 AT CALHOUN, KY (LAT 37 32 02 LONG 087 15 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985 07...	1410	2370	17.0	310
FEB 1986 25...	1030	21300	10.5	285
APR 07...	1255	2540	19.5	420
MAY 20...	1015	3920	21.0	200
JUN 24...	1130	2500	29.0	360
AUG 06...	1130	771	329.0	430
SEP 16...	1440	4940	20.5	310

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
03320500 - POND RIVER NEAR APEX, KY (LAT 37 07 20 LONG 087 19 10)				
FEB 1986				
24...	1450	271	1.5	400
APR				
10...	1610	37	17.0	360
MAY				
22...	1000	35	19.0	210
AUG				
05...	1115	0.86	30.0	310
03383000 - TRADEWATER RIVER AT OLNEY, KY (LAT 37 13 26 LONG 87 46 53)				
DEC 1985				
19...	0900	186	1.0	300
MAR 1986				
11...	1348	79	11.5	430
APR				
22...	1215	52	14.0	580
JUN				
04...	1100	80	22.0	280
JUL				
17...	0925	20	26.5	370
AUG				
26...	0950	1.0	24.0	330
AUG				
29...	1320	0.53	22.0	550
SEP				
08...	1030	0.28	21.0	340
03400500 - POOR FORK AT CUMBERLAND, KY (LAT 36 58 26 LONG 082 59 38)				
OCT 1985				
03...	1215	31	15.0	650
NOV				
20...	0935	33	14.5	460
JAN 1986				
07...	1125	59	5.0	380
FEB				
20...	1330	762	5.5	180
MAR				
31...	1235	81	16.0	460
MAY				
12...	0920	80	18.0	460
JUN				
23...	0855	22	22.0	650
AUG				
12...	1235	34	28.5	720
03400800 - MARTINS FORK NEAR SMITH, KY (LAT 36 45 08 LONG 083 15 27)				
OCT 1985				
10...	1445	35	19.5	170
DEC				
23...	1514	53	4.5	177
FEB 1986				
24...	1520	309	7.0	145
MAR				
27...	1330	13	11.0	160
MAY				
13...	1050	12	16.0	170
JUN				
24...	1200	11	23.5	162
AUG				
11...	1035	12	24.5	195

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03400990 - CLOVER FORK AT HARLAN, KY (LAT 36 50 50 LONG 083 19 31)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
03...	1525	86	18.0	580
NOV				
20...	1215	89	14.5	380
JAN 1986				
07...	1410	200	3.0	300
FEB				
21...	1250	1380	4.0	330
MAR				
31...	1420	166	16.5	450
MAY				
12...	1115	75	25.0	480
JUN				
23...	1150	42	22.0	560
AUG				
12...	1345	67	27.5	740

03401000 - CUMBERLAND RIVER NEAR HARLAN, KY (LAT 36 50 48 LONG 083 21 21)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
08...	1145	70	14.5	560
NOV				
20...	1415	158	15.0	365
JAN 1986				
08...	1245	258	2.5	360
FEB				
21...	1600	2140	4.0	210
APR				
01...	1150	278	15.5	425
MAY				
13...	1455	180	23.0	305
JUN				
24...	0925	76	26.5	560
AUG				
13...	1215	92	25.5	520

03402000 - YELLOW CREEK NEAR MIDDLESBORO, KY (LAT 36 40 05 LONG 083 41 19)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT³/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
OCT 1985				
08...	1045	11	13.5	900
NOV				
26...	1450	46	15.0	--
JAN 1986				
02..	1430	52	2.0	385
FEB				
18...	1410	2120	--	--
APR				
04...	1500	40	18.0	510
MAY				
14...	1215	20	19.0	450
JUN				
25...	1210	6.9	26.0	620
AUG				
12...	1200	37	22.0	450

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAMFLOW, INSTANTANEOUS (FT^3/S)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
03403910 - CLEAR FORK AT SAXTON, KY (LAT 36 38 02 LONG 084 06 42)				
OCT 1985				
08...	1115	76	13.0	465
NOV				
18...	1115	116	14.5	370
DEC				
31...	1130	142	1.0	320
FEB 1986				
20...	1425	1630	10.0	200
MAR				
31...	1335	229	14.5	350
MAY				
12...	1415	96	21.5	470
JUN				
26...	0930	30	23.0	520
AUG				
13...	0950	137	22.0	345
03404000 - CUMBERLAND RIVER AT WILLIAMSBURG, KY (LAT 36 44 38 LONG 084 09 30)				
OCT 1985				
09...	1425	283	16.0	480
NOV				
18...	1530	730	12.0	320
JAN 1986				
02...	1505	961	7.0	--
FEB				
25...	1700	4130	7.0	280
APR				
07...	1505	773	20.0	400
MAY				
14...	1500	467	23.5	440
JUN				
27...	1000	155	25.0	440
AUG				
13...	1540	783	25.0	500
03404500 - CUMBERLAND RIVER AT CUMBERLAND FALLS, KY (LAT 36 50 14 LONG 084 20 36)				
OCT 1985				
04...	1500	1270	18.0	319
NOV				
12...	1530	1020	12.5	248
JAN 1986				
03...	1030	1070	2.0	310
MAR				
10...	1530	1920	8.0	300
APR				
02...	1315	1200	18.0	320
MAY				
27...	1200	1650	22.0	275
JUN				
30...	1150	373	27.0	420
AUG				
15...	1320	491	25.5	505

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03404900 - LYNN CAMP CREEK AT CORBIN, KY (LAT 36 57 05 LONG 084 05 37)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
09...	1150	8.3	16.0	480
NOV				
21...	1615	17	12.0	330
JAN 1986				
07...	1147	14	2.5	410
FEB				
21...	1146	174	9.5	320
MAR				
06...	1140	60	5.0	380
APR				
04...	1105	19	17.0	485
MAY				
15...	1006	9.8	21.0	570
JUN				
24...	1030	1.2	27.5	580
AUG				
13...	1505	2.0	26.5	790

03406500 - ROCKCASTLE RIVER AT BILLOWS, KY (LAT 37 10 16 LONG 084 17 46)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
02...	1455	39	14.0	245
NOV				
15...	1445	154	14.0	210
FEB 1986				
27...	1540	800	4.5	135
APR				
02...	1150	256	15.0	205
MAY				
12...	1345	98	21.5	220
JUN				
23...	1035	62	24.5	218
AUG				
14...	1325	8.4	25.5	250

03407500 - BUCK CREEK NEAR SHOPVILLE, KY (LAT 37 12 38 LONG 084 27 52)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
02...	1055	5.0	14.0	250
OCT				
02...	1240	6.1	14.0	250
NOV				
22...	1215	78	11.0	200
DEC				
31...	1200	61	1.0	170
FEB 1986				
26...	1100	206	4.5	170
APR				
01...	1540	64	18.0	180
MAY				
12...	1120	16	22.0	200
JUN				
23...	1335	5.9	26.0	216
AUG				
14...	1125	0.1	24.5	198

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03435140 - WHIPPOORWILL CREEK NEAR CLAYMOUR, KY (LAT 36 52 29 LONG 087 05 20)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
NOV 1985				
22...	1200	9.7	10.0	295
JAN 1986				
08...	1200	3.0	0.5	--
FEB				
26...	1230	10	2.0	290
APR				
10...	1140	3.1	15.5	220
MAY				
22...	1015	2.2	15.0	360
JUN				
25...	0950	4.3	22.0	230
AUG				
05...	1535	0.02	29.0	220

03438000 - LITTLE RIVER NEAR CADIZ, KY (LAT 36 46 40 LONG 087 43 18)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
01...	1110	65	14.0	370
DEC				
19...	1300	351	5.0	480
JAN 1986				
23...	1130	114	1.0	440
MAR				
11...	1110	186	13.5	400
APR				
22...	1000	118	14.0	440
JUN				
03...	1208	93	21.0	460
AUG				
26...	1210	35	24.0	520
SEP				
15...	1200	40	20.0	300

03438190 - BARKLEY-KENTUCKY CANAL NEAR GRAND RIVERS, KY (LAT 36 59 23 LONG 088 13 17)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
FEB 1986				
03...	1330	4650	4.0	295
MAY				
12...	1130	--	17.5	290

03610200 - CLARKS RIVER AT ALMO, KY (LAT 36 41 30 LONG 088 16 25)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985				
01...	1330	25	16.0	--
NOV				
13...	1500	39	19.0	--
DEC				
18...	1030	59	4.0	160
MAR 1986				
12...	1130	351	3.5	200
APR				
24...	1250	18	19.0	195
JUN				
03...	1040	19	21.0	150
JUL				
24...	1100	2.8	29.5	180
SEP				
04...	1300	6.0	24.5	205

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03611260 - MASSAC CREEK NEAR PADUCAH, KY (LAT 37 02 29 LONG 088 42 39)

	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
NOV 1985 12...	1340	4.6	17.0	110	
DEC 17...	1030	6.9	3.0	120	
JAN 1986 14...	1235	2.6	1.5	100	
MAR 11...	1640	1.7	4.5	95	
MAR 25...	1250	3.7	6.0	95	
MAY 02...	1320	1.2	19.0	150	
JUN 20...	1430	0.89	27.0	95	
JUL 21...	1420	1.3	28.0	120	
AUG 18...	1435	0.66	26.0	90	
SEP 15...	1035	0.42	24.0	90	

07024000 - BAYOU DE CHIEN NEAR CLINTON, KY (LAT 36 37 43 LONG 088 57 50)

	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT³/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
OCT 1985 01...	1015	42	14.0	--	
NOV 13...	1225	38	19.0	--	
DEC 17...	1230	39	5.0	130	
MAR 1986 12...	1405	1020	4.0	95	
MAY 02...	1330	22	18.0	140	
JUN 03...	1215	21	17.0	125	
JUL 22...	1415	15	32.0	78	
SEP 08...	1210	17	24.0	70	
SEP 15...	1300	18	25.0	70	

MISCELLANEOUS WATER-QUALITY ANALYSES IN THE BIG SANDY RIVER BASIN

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03209500 - LEVISA FORK AT PIKEVILLE, KY (LAT 37 27 51 LONG 082 31 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	BARO-METRIC PRES-SURE (MM OF HG)
OCT 1985								
08...	1020	393	15.0	650	7.80	9.1	92	750
NOV								
21...	1245	558	14.0	520	7.80	9.2	90	754

DATE	TUR-BID-ITY (NTU)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1985							
08...	3.5	170	383	2.0	2.0	10	30
NOV							
21...	--	--	--	1.9	1.9	--	--

03212500 - LEVISA FORK AT PAINTSVILLE, KY (LAT 37 48 55 LONG 082 47 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	BARO-METRIC PRES-SURE (MM OF HG)
OCT 1985								
07...	1145	652	12.0	660	8.30	8.5	80	752
NOV								
20...	1045	882	14.0	480	8.10	9.5	93	753

DATE	TUR-BID-ITY (NTU)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1985							
07...	13	160	404	3.6	--	10	40
NOV							
20...	--	--	--	2.6	2.6	--	--

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MISCELLANEOUS WATER-QUALITY ANALYSES IN THE BIG SANDY RIVER BASIN

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

03212545 - LEVISA FORK AT LOUISA, KY (LAT 38 06 57 LONG 082 36 02)

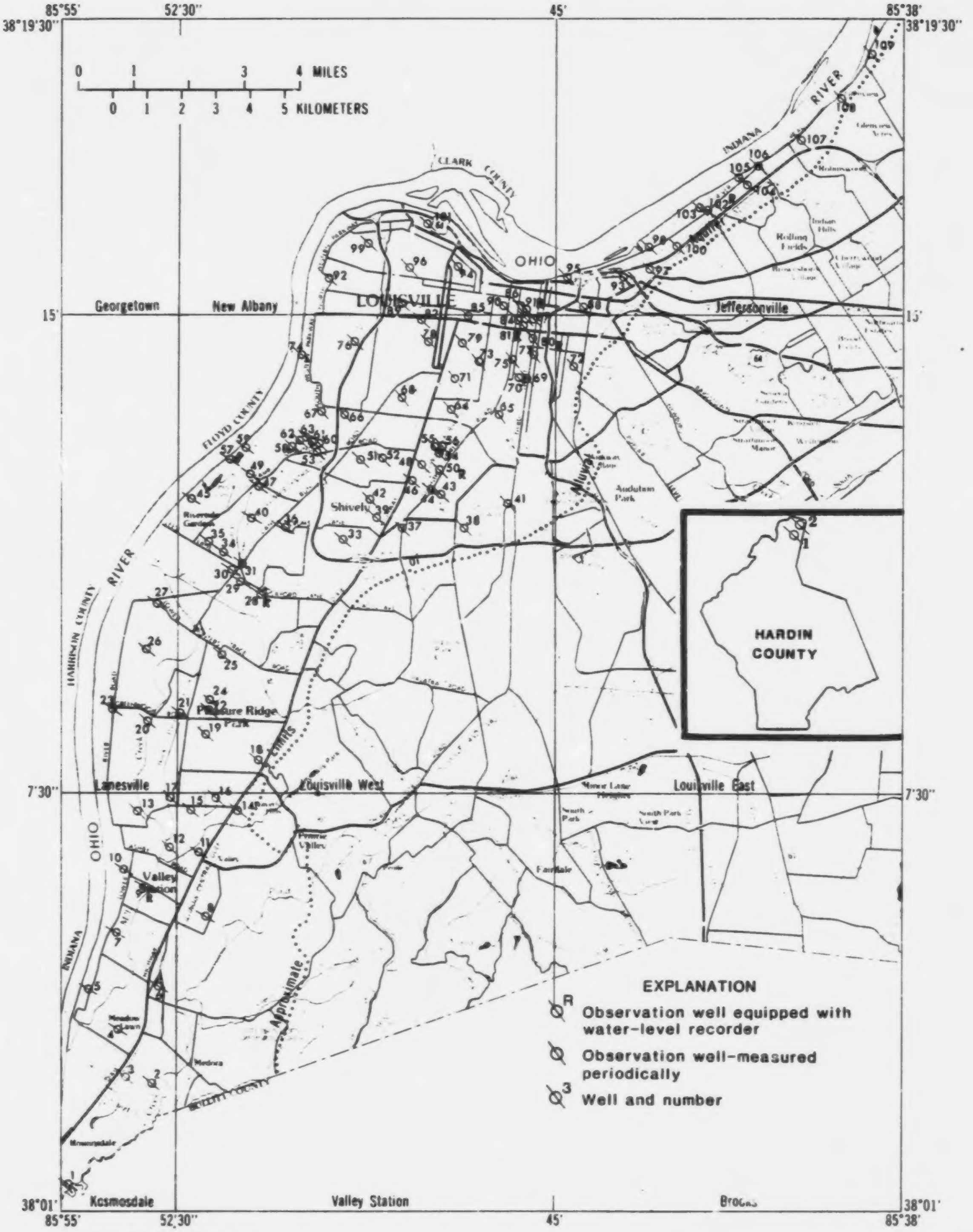
DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	BARO-METRIC PRES-SURE (MM OF HG)
OCT 1985								
09...	1100	512	15.5	630	7.70	10.1	102	759

DATE	TUR-BID-ITY (NTU)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1985							
09...	6.5	160	401	2.3	2.3	10	40

03215600 - BIG SANDY RIVER NEAR BURNAUGH, KY (LAT 38 13 18 LONG 082 36 25)

DATE	TIME	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	BARO-METRIC PRES-SURE (MM OF HG)
OCT 1985							
09...	1200	16.0	650	7.30	10.0	102	760
NOV							
25...	1335	10.0	410	7.50	10.2	91	754

DATE	TUR-BID-ITY (NTU)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1985							
09...	7.5	160	423	2.3	2.3	10	60
NOV							
25...	--	--	--	4.6	3.2	--	--


85°55'
52'30"
45'
85°38'
38°19'30"
38°19'30"
0 1 3 4 MILES
0 1 2 3 4 5 KILOMETERS
CLARK COUNTY
INDIANA
RIVER
OHIO
LOUISVILLE
Georgetown
New Albany
Jeffersonville
15'
15'
FLOYD COUNTY
Shively
Audubon Park
HARRISON COUNTY
RIVER
HARDIN COUNTY
Pleasure Ridge Park
Lanesville
Louisville West
Louisville East
7'30"
7'30"
OHIO
Valley Station
INDIANA
Medora
BULLITT COUNTY
Kosmosdale
Valley Station
Brooks
Fairdale
EXPLANATION
R Observation well equipped with water-level recorder
Observation well-measured periodically
3 Well and number
38°01'
38°01'
85°55'
52'30"
45'
85°38'

Base from U.S. Geological Survey

Figure 7.--Location of observation wells in Jefferson and Hardin Counties.

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HARDIN COUNTY

375948085574801. Local number, Hart number 2, map number 1.

LOCATION.--Lat 37°59'48", long 85°57'48", Hydrologic Unit 05140104, County Code 093, Ft. Knox quadrangle, 1.3 mi north of junction of U.S. Highway 31W and Kentucky State Highway 835, 1.1 mi downstream (west) of mouth of Salt River, 1,000 ft south of bank of Ohio River, in West Point. Owner: Mr. Hart.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 84.0 ft, screened 81.0-84.0 ft.

INSTRUMENTATION: Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 432.13 ft, above National Geodetic Vertical Datum. Measuring point: Top of casing 3.00 ft above land-surface datum.

REMARKS.--Water levels affected by Ohio River.

PERIOD OF RECORD.--November 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.61 ft below land-surface datum, Apr. 30, 1984; lowest measured 47.13 ft below land-surface datum, Oct. 27, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	47.15	Apr. 24, 1986	42.84

375958085575401. Local number, Hart number 1, map number 2.

LOCATION.--Lat 37°59'58", long 85°57'54", Hydrologic Unit 05140104, County Code 093, Ft. Knox quadrangle, 1.4 mi north of junction of U.S. Highway 31W and Kentucky State Highway 835, 1.1 mi downstream (west) of mouth of Salt River, on south bank of Ohio River, at West Point. Owner: Mr. Hart.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 100 ft, screened 97.3 -100.3 ft.

INSTRUMENTATION: Bi-Annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 429.61 ft, above National Geodetic Vertical Datum. Measuring point: Top of casing 3.27 ft above land-surface datum.

REMARKS.--Water levels affected by Ohio River.

PERIOD OF RECORD.--November 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.99 ft below land-surface datum, May 2, 1983; lowest measured, 45.98 ft below land-surface datum, Oct. 27, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	45.58	Apr. 24, 1986	41.71

GROUND-WATER LEVELS

JEFFERSON COUNTY

380122085545001. Local number 80-1, map number 1.
LOCATION.--Lat 38°01'22", long 85°54'50", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, 12 ft west of an old private driveway, 40 ft north of Kentucky Highway 44, 0.25 mi southeast of junction of U.S. Highway 31W and Kentucky Highway 44, 0.9 mi southwest of Kosmosdale. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 100 ft, screened 93.0-95.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 431.64 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--May 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.74 ft below land-surface datum, Apr. 30, 1984; lowest measured, 41.91 ft below land-surface datum, Dec. 23, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 5, 1985	41.90	Apr. 24, 1986	36.59

380252085530601. Local number 79-3, map number 2.
LOCATION.--Lat 38°02'52", long 85°53'06", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, on the south side of the first building inside the gate at Old Boone Distillery, at the south end of Bohannon Avenue, 0.9 mi south of Pendleton Road, 1.5 mi northeast of Kosmosdale. Owner: Ronald Clark.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled used water-table well, diameter 12 in, depth 90 ft cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 440.75 ft above National Geodetic Vertical Datum. Measuring point: Top of metal well cover, 0.70 ft above land-surface datum.
REMARKS.--Water levels affected by pumping.
PERIOD OF RECORD.--March 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.21 ft below land-surface datum, May 24, 1979; lowest measured, 38.32 ft below land-surface datum, Nov. 5, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 5, 1985	38.32	Apr. 24, 1986	37.67

380308085533501. Local number 79-4, map number 3.
LOCATION.--Lat 38°03'08", long 85°53'35", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, at 14045 Richie Lane, between farmhouse and fishing lake, 400 ft east of Dixie Highway, and 1.4 mi northeast of Kosmosdale. Owner: Chesley Wix.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled used water-table well, diameter 6 in, depth 83 ft, screened 73-83 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 440.74 ft above National Geodetic Vertical Datum. Measuring point: Top of metal well cover, 2.00 ft above land-surface datum.
REMARKS.--Water levels affected by pumping.
PERIOD OF RECORD.--March 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.09 ft below land-surface datum, Apr. 16, 1980; lowest measured, 43.15 ft below land-surface datum, June 15, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 14, 1985	39.60	Apr. 24, 1986	37.57

JEFFERSON COUNTY

380341085534501. Local number 83-1, map number 4.
LOCATION.--Lat 38°03'41", long 85°53'45", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, across street from 135111 Wilken Way, at east edge of Watson Lane Elementary School playground, 8 ft west of blacktop pavement, 9 ft east of a powerline pole, 2 mi north of Kosmosdale, in Meadow Lawn subdivision. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 64 ft, screened 62-64 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 441.25 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--March 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.31 ft below land-surface datum, Apr. 22, 1985; lowest measured, 42.31 ft below land-surface datum, Nov. 04, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4. 1985	42.31	Apr. 24, 1986	38.80

380423085541501. Local number, Genewien number 2, map number 5.
LOCATION.--Lat 38°04'23", long 85°54'15", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, 31 ft south of Louisville Gas & Electric power line pole number 47, 33 ft west of center line of Cane Run Road, 0.7 mi south of Orell Road, 1.5 mi north of Louisville Gas & Electric Mill Creek Generating Plant, 2.5 mi north of Kosmosdale. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 65 ft, screened 63-65 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 431.49 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--April 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.42 ft below land-surface datum, Apr. 30, 1984; lowest measured, 43.39 ft below land-surface datum, Nov. 04, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	43.39	Apr. 24, 1986	38.94

380434085525101. Local number E-1-d, map number 6.
LOCATION.--Lat 38°04'34", long 85°52'51", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, 7 ft east of the east bank of a drainage ditch, 18 ft west of a fence, 39 ft south of a cable gate, 200 ft west of Old Orell Road, 400 ft south of Old Dixie Highway in Valley Station. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth 74.5 ft, screened 75-78 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 430.39 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.
REMARKS.--EPA, Mill Creek EIS test well.
PERIOD OF RECORD.--October 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.82 ft below land-surface datum, Oct. 29, 1980; lowest measured, 25.25 ft below land-surface datum, May 2, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 5, 1985	24.60	Apr. 24, 1986	23.11

GROUND-WATER LEVELS

JEFFERSON COUNTY

380517085535201. Local number 77-1, map number 7.

LOCATION.--Lat 38°05'17", long 85°53'52", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, the north edge of gravel entrance road to southwest Jefferson County sewage pumping station, 125 ft east of the center line of Lower River Road, 0.4 mi north of Orell Road, 0.2 mi east of Ohio River, and 1.5 mi southwest of Valley Station. Owner: Metropolitan Sewer District.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 83.2 ft, screened 80.2-83.2 ft.

INSTRUMENTATAION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 444.96 ft above National Geodetic Vertical Datum.
Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.81 ft below land-surface datum, Apr. 30, 1984; lowest measured, 57.75 ft below land-surface datum, Nov. 10, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	54.54	May 28, 1986	52.00

380532085515301. Local number 51-5-2, (76-1), map number 8.

LOCATION.--Lat 38°05'32", long 85°51'53", Hydrologic Unit 05140102, County Code 111, Valley Station quadrangle, in back yard at 11212 Deering Road in Valley Station. Owner: Curtis Asncraft (formerly David Finn).

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 88 ft, screened 85-88 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 458.24 ft above National Geodetic Vertical Datum. Measuring point: Base of shelter, 2.69 ft above land-surface datum. After May 15, 1978, measuring point: Top of casing, 0.30 ft above land-surface datum.

REMARKS.--Water-level elevations previously published referenced to National Geodetic Vertical Datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.03 ft below land-surface datum, June 24, 1980; lowest measured, 46.73 ft above land-surface datum, Oct. 31, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 5, 1985	42.32	Apr. 24, 1986	42.89

JEFFERSON COUNTY

380606085531301. Local number 53-6-1, (RR-46), map number 9.

LOCATION.--Lat 38°06'06", long 85°53'13", Hydrologic Unit 05140101. County Code 111, Kosmosdale quadrangle, at entrance to Sun Valley Park, 20 ft south of Bethany Lane, 0.2 mi east of Lower River Road, in Valley Station. Owner: Jefferson County.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 92 ft, screened 88-90 ft.

INSTRUMENTATION.--ADR recorder--60-minute punch.

DATUM.--Altitude of land-surface datum is 433.89 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 2.93 ft above land-surface datum.

PERIOD OF RECORD.--July 1945 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.14 ft below land-surface datum, May 19, 1975; lowest, 40.87 ft below land-surface datum, Feb. 19, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 1200

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.07	28.43	27.81	26.68	26.98	26.33	25.57	26.18	26.92	27.50	27.91	28.46
2	28.08	28.50	28.04	26.57	27.00	26.17	25.59	26.25	26.98	27.52	27.93	28.47
3	28.07	28.51	27.98	26.61	26.91	26.19	25.56	26.28	27.00	27.58	27.96	28.49
4	28.07	28.51	27.83	26.54	26.82	26.18	25.61	26.25	27.01	27.59	27.98	28.50
5	28.11	28.53	27.73	26.67	26.87	26.12	25.61	26.23	27.01	27.61	27.98	28.53
6	28.14	28.54	27.78	26.59	26.86	26.08	25.59	26.28	27.03	27.63	27.98	28.56
7	28.16	28.55	27.69	26.72	26.93	26.17	25.61	26.31	27.04	27.64	28.00	28.58
8	28.18	28.59	27.60	26.76	27.02	26.13	25.57	26.34	27.09	27.64	28.01	28.61
9	28.20	28.55	27.61	26.61	26.96	25.96	25.70	26.38	27.13	27.62	28.04	28.62
10	28.19	28.55	27.53	26.57	26.86	25.88	25.65	26.39	27.13	27.65	28.05	28.62
11	28.20	28.59	27.39	26.64	26.80	26.09	25.63	26.40	27.12	27.66	28.09	28.62
12	28.21	28.54	27.41	26.59	26.90	25.84	25.69	26.42	27.15	27.68	28.11	28.67
13	28.24	28.50	27.26	26.74	26.69	25.84	25.75	26.45	27.22	27.70	28.11	28.71
14	28.24	28.50	27.38	26.59	26.54	25.86	25.73	26.49	27.22	27.73	28.12	28.72
15	28.27	28.50	27.22	26.81	26.79	25.94	25.78	26.53	27.22	27.73	28.14	28.73
16	28.30	28.43	27.15	26.78	26.55	25.97	25.83	26.55	27.25	27.74	28.16	28.75
17	28.32	28.48	27.06	26.76	26.49	25.94	25.87	26.55	27.29	27.75	28.18	28.76
18	28.32	28.40	27.18	26.75	26.53	25.75	25.90	26.56	27.30	27.76	28.21	28.77
19	28.32	28.37	27.06	26.73	26.47	25.67	25.90	26.61	27.29	27.76	28.22	28.79
20	28.32	28.45	26.92	26.84	26.59	26.03	25.73	26.66	27.32	27.75	28.24	28.80
21	28.35	28.35	26.96	26.83	26.64	26.02	25.88	26.67	27.35	27.79	28.26	28.82
22	28.37	28.27	26.77	26.94	26.54	25.86	26.03	26.69	27.35	27.81	28.28	28.83
23	28.37	28.28	26.79	26.98	26.52	25.67	26.06	26.71	27.36	27.83	28.28	28.83
24	28.39	28.26	26.77	26.91	26.39	25.81	26.04	26.77	27.39	27.82	28.32	28.85
25	28.43	28.20	26.85	26.87	26.47	25.68	26.00	26.78	27.44	27.82	28.33	28.88
26	28.42	28.13	26.64	26.88	26.03	25.62	26.05	26.78	27.44	27.83	28.35	28.90
27	28.43	28.13	26.69	26.97	26.25	25.68	26.08	26.82	27.44	27.85	28.37	28.91
28	28.45	28.06	26.71	26.96	26.48	25.63	26.05	26.86	27.44	27.86	28.42	28.93
29	28.44	28.07	26.63	26.91	---	25.57	26.18	26.87	27.46	27.88	28.44	28.94
30	28.44	28.01	26.63	27.08	---	25.56	26.16	26.88	27.48	27.89	28.44	28.95
31	28.42	---	26.55	27.02	---	25.59	---	26.90	---	27.91	28.45	---
MAX	28.45	28.59	28.04	27.08	27.02	26.33	26.18	26.90	27.48	27.91	28.45	28.95
MIN	28.07	28.01	26.55	26.54	26.03	25.56	25.56	26.18	26.92	27.50	27.91	28.46

WTR YR 1986 HIGH 25.56 LOW 28.95

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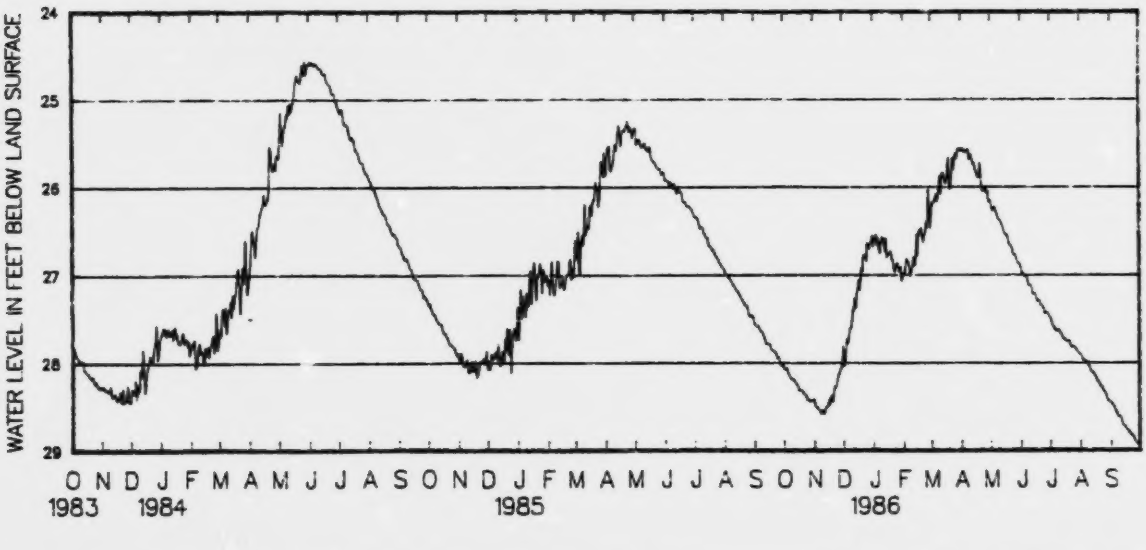

JEFFERSON COUNTY

380616085532801. Local number 53-6-4, (TW-3), map number 10.

LOCATION.--Lat 38°06'16", long 85°53'28", Hydrologic Unit C5140101, County Code 111, Kosmosdale quadrangle, at the old Louisville Extension Water District Treatment Plant, 500 ft northwest of the junction of Lower River Road and Bethany Lane, in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Driven unused water-table well, diameter 2 in, depth 120 ft, screened 118-120 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 448.21 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--March 1962 to current year. March 1962 to September 1976 published in hydrograph form and on file at district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.97 ft below land-surface datum, May 22, 1975; lowest measured, 71.21 ft below land-surface datum, Nov. 10, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	44.75	Apr. 24, 1986	41.90

380637085521301. Local number D-1-d, map number 11.

LOCATION.--Lat 38°06'37", long 85°52'13", Hydrologic Unit 05140101, County Code 111, Valley Station quadrangle, 6 ft east of the east bank of 600 Tributary Creek, 14 ft west of a chain link fence, 30 ft south of a locked cable gate, 190 ft south of Alanadale Drive at a concrete bridge in Louisville. Owner: Metropolitan Sewer District.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 90.3 ft, screened 118-120 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 441.1 ft above National Geodetic Vertical Datum. Measuring point: Top of edge of metal well cover, at land-surface datum.

REMARKS.--EPA, Mill Creek EIS test well.

PERIOD OF RECORD.--October 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.39 ft below land-surface datum, Oct. 29, 1980; lowest measured, 25.02 ft below land-surface datum, May 2, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 5, 1985	23.35	Apr. 24, 1986	23.70

380633085524701. Local number D-2-d, map number 12.

LOCATION.--Lat 38°06'33", long 85°52'47", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, in an open field 73 ft east of a clump of small maple trees, 300 ft east of Mill Creek, 0.2 mi north of Ashby Lane, in Louisville, Owner: Metropolitan Sewer District.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 78.9 ft, screened 77-80 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 424.2 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.

REMARKS.--EPA, Mill Creek EIS test well.

PERIOD OF RECORD.--October 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.10 ft below land-surface datum, Oct. 29, 1980; lowest measured, 12.32 ft below land-surface datum, Nov. 28, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 5, 1985	12.20	Apr. 24, 1986	destroyed

JEFFERSON COUNTY

380709085531101. Local number C-5-d, map number 13.

LOCATION.--Lat 38°07'09", long 85°53'11", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, 3 ft west of a gravel field road, 20 ft west of west bank of Mill Creek, 50 ft southeast of two large oak trees, 550 ft northwest of Johnsontown Road, in Louisville. Owner: Metropolitan Sewer District.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 81.0 ft, screened 73-81 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 427.1 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.

REMARKS.--EPA, Mill Creek EIS test well.

PERIOD OF RECORD.--October 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.83 ft below land-surface datum, Oct. 29, 1980; lowest measured, 17.26 ft below land-surface datum, Oct. 26, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Data	Water level
Nov. 14, 1985	16.82	Apr. 24, 1986	15.55

380715085512001. Local number C-2-d, map number 14.

LOCATION.--Lat 38°07'15", long 85°51'20", Hydrologic Unit 05140101, County Code 111, Valley Station quadrangle, 27 ft south of a small drainage ditch, 49 ft southwest of an electric utility power pole, 60 ft east of east edge of pavement on Dixie Highway (U.S. Highway 31W), 120 ft east of junction of Dixie Highway and Johnsontown Road in Louisville. Owner: Metropolitan Sewer District.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 60.3 ft, screened 58-61 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tapes by USGS personnel.

DATUM.--Altitude of land-surface datum is 462.8 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.

REMARKS.--EPA, Mill Creek EIS test well.

PERIOD OF RECORD.--October 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.40 ft below land-surface datum, Oct. 29, 1980; lowest measured, 43.10 ft below land-surface datum, May 2, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Data	Water level
Nov. 4, 1985	41.27	Apr. 24. 1986	42.20

380716085521801. Local numbers 52-7-2, (RR-47), map number 15.

LOCATION.--Lat 38°07'16", long 85°52'18", Hydrologic Unit 05140101, County Code 111, Valley Station quadrangle, at 5510 Johnsontown Road, 0.9 mi west of junction of Dixie Highway and Johnsontown Road, on the south shoulder of Johnsontown Road, in Valley Station. Owner: Jefferson County.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 103 ft, screened 101.5-103.0 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 449.91 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--July 1945 to current year. July 1945 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.56 ft below land-surface datum, Apr. 16, 1980; lowest measured, 42.20 ft below land-surface datum, Mar. 27, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Data	Water level
Nov. 4, 1985	31.48	Apr. 24, 1986	32.06

JEFFERSON COUNTY

380718085515802. Local number C-3-s, map number 16.
LOCATION.--Lat 38°07'18", long 85°51'58", Hydrologic Unit 05140101, County Code 111, Valley Station quadrangle, 6 ft west of west bank of 600 Tributary Creek, 30 ft of the scutheast corner of a chain link fence dog pen, 160 ft north of Johnsontown Road at a concrete bridge, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 39.0 ft, screened 36-39 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 443.2 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.
REMARKS.--EPA, Mill Creek EIS test well. Replaces well 380718085515801 (C-3-d).
PERIOD OF RECORD.--April 1984 to current year.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	23.42	Apr. 24, 1986	24.25

380718085524202. Local number C-4-m, map number 17.
LOCATION.--Lat 38°07'18", long 85°52'42", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, 10 ft west of a gravel field road, 65 ft north of a metal gate, 72 ft south of a concrete culvert, 115 ft east of east bank of Black Pond Creek, 126 ft north of Johnsontown Road, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 49.2 ft, screened 46.2-49.2 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 432.1 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.
REMARKS.--EPA, Mill Creek EIS test well. Replaces lost well 380718085524201 (C-4-d).
PERIOD OF RECORD.--November 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.24 ft below land-surface datum, Oct. 29, 1980; lowest measured, 18.33 ft below land-surface datum, May 2, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	16.77	Apr. 24, 1986	16.98

380755085510701. Local number 78-4, map number 18.
LOCATION.--Lat 38°07'55", long 85°51'07", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at 8208 Kerry Road, center of gravel driveway, 25.0 ft west of the center line of Kerry Road, 1300 ft northwest of the junction of Dixie Highway and West Pages Lane, in Louisville. Owner: Jerry Blevins.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 77.2 ft, screened 74.2-77.2 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 455.43 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--May 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.80 ft below land-surface datum, July 21, 1980; lowest measured, 23.60 ft below land-surface datum, May 2, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	22.06	Apr. 24, 1986	22.89

JEFFERSON COUNTY

380816085520701. Local number 52-8-1, map number 19.

LOCATION.--Lat 38°08'16", long 85°52'07", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, between the house and a tool shed at a vegetable farm, 0.5 mi south of Greenwood Road, 0.1 mi west of Canna Road, in Louisville. Owner: Anna Dohn.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Dug unused water-table well, diameter 30 in, depth 70 ft, shored.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 457.47 ft above National Geodetic Vertical Datum. Measuring point: Top of wooden well cover, 0.62 ft above land-surface datum.

REMARKS.--Water level affected by pumping from nearby well.

PERIOD OF RECORD.--November 1943 to current year. November 1943 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.13 ft below land-surface datum, Oct. 27, 1980; lowest measured, 51.20 ft below land-surface datum, Feb. 10, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	37.10	Apr. 24, 1986	37.88

380843085530701. Local number B-3-d, map number 20.

LOCATION.--Lat 38°08'43", long 85°53'07", Hydrologic Unit 05140101, County Code 111, Lanesville quadrangle, in a field 60 ft east of southeast corner of church yard fence, 200 ft southeast of Greenwood Road, 300 ft west of Mill Creek, in Louisville. Owner: Metropolitan Sewer District.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth 92.8 ft, screened 90-93 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 424.9 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.

REMARKS.--EPA, Mill Creek EIS test well.

PERIOD OF RECORD.--October 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.78 ft below land-surface datum, Oct. 29, 1980; lowest measured, 14.97 ft below land-surface datum, May 2, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	Unknown	Apr. 24, 1986	13.25

380843085522801. Local number B-2-d, map number 21.

LOCATION.--Lat 38°08'43", long 85°52'28", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 6 ft west of west bank of Pond Creek, 75 ft north of Greenwood Road at bridge over Black Pond Creek, in Louisville. Owner: Metropolitan Sewer District.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth 95.3 ft, screened 94-97.

INSTRUMENTATION.--Bi-annual measurment with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 443.4 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.

REMARKS.--EPA, Mill Creek EIS test well.

PERIOD OF RECORD.--October 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.01 ft below land-surface datum, Oct. 29, 1980; lowest measured, 27.29 ft below land-surface datum, May 2, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	25.65	Apr. 24, 1986	26.29

JEFFERSON COUNTY

380846085520101. Local number B-1-d, map number 22.
LOCATION.--Lat 38°08'46", long 85°52'01", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 10 ft south of south bank of a drainage ditch, 75 ft west of Waller Lane, 650 ft north of junction of Waller Lane and Greenwood Road, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 83.7 ft, screened 81-84 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 451.3 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.
REMARKS.--EPA, Mill Creek EIS test well.
PERIOD OF RECORD.--October 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.98 ft below land-surface datum, Oct. 29, 1980; lowest measured, 32.56 ft below land-surface datum, May 2, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	30.88	Apr. 24, 1986	31.60

380850085534701. Local number 78-2, map number 23.
LOCATION.--Lat 38°08'50", long 85°53'47", Hydrologic Unit 05140101, County Code 111, Lanesville quadrangle, at the southwest corner of Cane Run Road and Greenwood Road, 25 ft west of Cane Run Road, 44 ft south of Greenwood Road, and 0.4 mi east of Ohio River, in Louisville. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 92.2 ft, screened 89.2-92.2 ft.
INSTRUMENTATAION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 450.07 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.60 ft above land-surface datum.
PERIOD OF RECORD.--May 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.68 ft below land-suface datum, May 2, 1979; lowest measured, 49.48 ft below land-surface datum, Sept. 21, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	48.05	Apr. 24, 1986	43.70

380852085515901. Local number 51-8-1, map number 24.
LOCATION.--Lat 38°08'52", long 85°51'59", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the rear of a house, 100 ft west of Waller Lane, 0.2 mi north of Greenwood Road, 1.5 mi east of lower River Road, in Louisville. Owner: Mrs. Ethel Waller.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Dug unused water-table well, diameter 36 in, depth 50 ft, shored.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 456.75 ft above National Geodetic Vertical Datum. Measuring point: Top of concrete well cover, 0.30 ft above land-surface datum.
REMARKS.--Water-quality samples Apr. 4, 1944 and July 25, 1945.
PERIOD OF RECORD.--November 1943 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.76 ft below land-surface datum, June 24, 1980; lowest measured, 47.48 ft below land-surface datum, Jan. 24, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	36.24	Apr. 24, 1986	36.96

JEFFERSON COUNTY

330940085514001. Local number 81-1, map number 25.
LOCATION.--Lat 38°09'40", long 85°51'40", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 7 ft of a fence corner, 10 ft east of center of a gravel road, 20 ft north of the west bank of Black Pond Creek, 40 ft north of northeast corner of concrete bridge, 400 ft south of Lower Hunters Trace, 1.5 mi west of Dixie Highway, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 70.0 ft, screened 63.0-65.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS annual personnel.
DATUM.--Altitude of land-surface datum is 444.58 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-suface datum.
PERIOD OF RECORD.--April 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.57 ft below land-surface datum, Apr. 26, 1985; lowest measured, 24.70 ft below land-surface datum, Apr. 29, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	23.08	Apr. 24, 1986	23.58

380955085531801. Local number 83-2, map number 26.
LOCATION.--Lat 38°09'55", long 85°53'18", hydrologic Unit 05140101, County Code 111, Lanesville quadrangle, 19 ft northwest of a fire plug, 22 ft south of concrete curb on Riverport Drive, 100 ft southeast of a concrete bridge and drainage ditch, 3 mi northwest of Pleasure Ridge Park. Owner: Jefferson County.
AQUIFER.--Glacial and and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 97 ft, screened 95-97 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 441.8 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--July 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.30 ft below land-surface datum, July 13, 1983; lowest measured, 37.56 ft below land-surface datum, Nov. 4, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	37.56	Apr. 24, 1986	34.55

381032085525601. Local number 78-3, map number 27.
LOCATION.--Lat 38°10'32", long 85°52'56", Hydrologic Unit 05140101, County Code 111, Lanesville quadrangle, at the southwest corner of Cane Run Road and Lower Hunters Trace, 20 ft south of Cane Run Road, 100 ft west of Lower Hunters Trace, and 0.8 mi east of Ohio River, in Louisville. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 86.7 ft, screened 84.7-86.7 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 448.90 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.30 ft above land-surface datum.
PERIOD OF RECORD.--May 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.75 ft below land-surface datum, May 23, 1978; lowest measured, 44.20 ft below land-surface datum, Dec. 20, 1981, Jan. 21, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	43.68	Apr. 24, 1986	40.37

JEFFERSON COUNTY

381034085502601. Local numbers 50-10-2, (RR-30), map number 28.
LOCATION.--Lat 38°10'34", long 85°50'26", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, on south edge of Rockford Lane near west bank of Mill Creek, in Shively. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 94 ft, screened 90-92 ft.
INSTRUMENTATION.--ADR recorder--60-minute punch.
DATUM.--Altitude of land-surface datum is 442.96 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 4.31 ft above land-surface datum.
REMARKS.--Water-quality sample May 6, 1945.
PERIOD OF RECORD.--April 1945 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 15.38 ft below land-surface datum, Apr. 14, 1980; lowest 31.55 ft below land-surface datum, Apr. 2, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 1200

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.95	16.93	16.93	17.34	17.54	17.41	---	17.61	17.55	17.69	17.54	17.79
2	16.94	17.01	17.10	17.33	17.49	17.37	---	17.64	17.61	17.38	17.58	17.73
3	16.94	17.02	17.12	17.36	17.38	17.43	---	17.65	17.63	17.44	17.65	17.67
4	16.94	17.00	17.10	17.31	17.32	17.44	---	17.63	17.64	17.49	17.68	17.67
5	16.98	17.01	17.06	17.38	17.29	17.45	---	17.62	17.64	17.54	17.69	17.73
6	17.01	17.04	17.14	17.37	17.23	17.47	---	17.60	17.64	17.58	17.69	17.76
7	17.04	17.07	17.12	17.42	17.23	17.50	---	17.52	17.49	17.61	17.71	17.81
8	17.06	17.12	17.11	17.45	17.24	17.51	---	17.47	17.37	17.62	17.72	17.83
9	17.07	17.12	17.16	17.40	17.26	17.47	---	17.46	17.40	17.62	17.73	17.84
10	17.06	17.13	17.17	17.37	17.25	17.44	---	17.48	17.43	17.66	17.47	17.84
11	17.07	17.17	17.11	17.40	17.28	17.50	---	17.50	17.45	17.44	17.46	17.84
12	17.07	17.00	17.13	17.38	17.31	17.36	---	17.52	17.43	17.34	17.51	17.72
13	17.09	17.01	17.11	17.46	17.34	17.32	---	17.52	17.47	17.35	17.56	17.75
14	17.01	17.00	17.19	17.38	17.25	17.32	---	17.51	17.48	17.39	17.59	17.80
15	17.00	17.02	17.14	17.48	17.34	17.35	---	17.49	17.49	17.33	17.62	17.81
16	17.06	16.94	17.14	17.48	17.27	17.37	---	17.49	17.52	17.35	17.66	17.85
17	17.09	16.98	17.12	17.47	17.23	17.38	---	17.50	17.57	17.39	17.68	17.86
18	17.10	16.97	17.23	17.47	17.22	17.32	---	17.54	17.53	17.44	17.71	17.87
19	17.11	16.98	17.22	17.39	17.20	17.35	---	17.58	17.56	17.48	17.73	17.85
20	16.97	17.07	17.17	17.36	17.23	17.43	---	17.61	17.58	17.49	17.74	17.80
21	16.91	17.05	17.24	17.34	17.30	17.45	---	17.63	17.60	17.53	17.76	17.79
22	16.94	17.02	17.15	17.40	17.30	17.43	---	17.65	17.61	17.56	17.77	17.79
23	16.96	17.06	17.19	17.46	17.34	17.39	17.48	17.66	17.62	17.58	17.77	17.81
24	16.94	17.10	17.21	17.45	17.34	17.46	17.50	17.68	---	17.60	17.66	17.84
25	16.99	17.11	17.28	17.43	17.36	17.43	17.49	17.66	---	17.60	17.67	17.87
26	16.99	17.07	17.20	17.43	17.22	17.44	17.51	17.62	---	17.62	17.70	17.89
27	17.02	17.04	17.28	17.49	17.34	17.47	17.53	17.52	---	17.63	17.73	17.90
28	17.06	17.00	17.31	17.49	17.40	17.45	17.51	17.52	---	17.63	17.74	17.91
29	17.07	17.03	17.31	17.51	---	17.43	17.60	17.48	---	17.66	17.77	17.92
30	16.98	17.03	17.31	17.56	---	17.44	17.58	17.50	17.68	17.68	17.78	17.93
31	16.94	---	17.29	17.56	---	17.47	---	17.53	---	17.67	17.79	---
MAX	17.11	17.17	17.31	17.56	17.54	17.51	---	17.68	---	17.69	17.79	17.93
MIN	16.91	16.93	16.93	17.31	17.20	17.32	---	17.46	---	17.33	17.46	17.67

WTR YR 1986 HIGH 16.91 LOW 17.93

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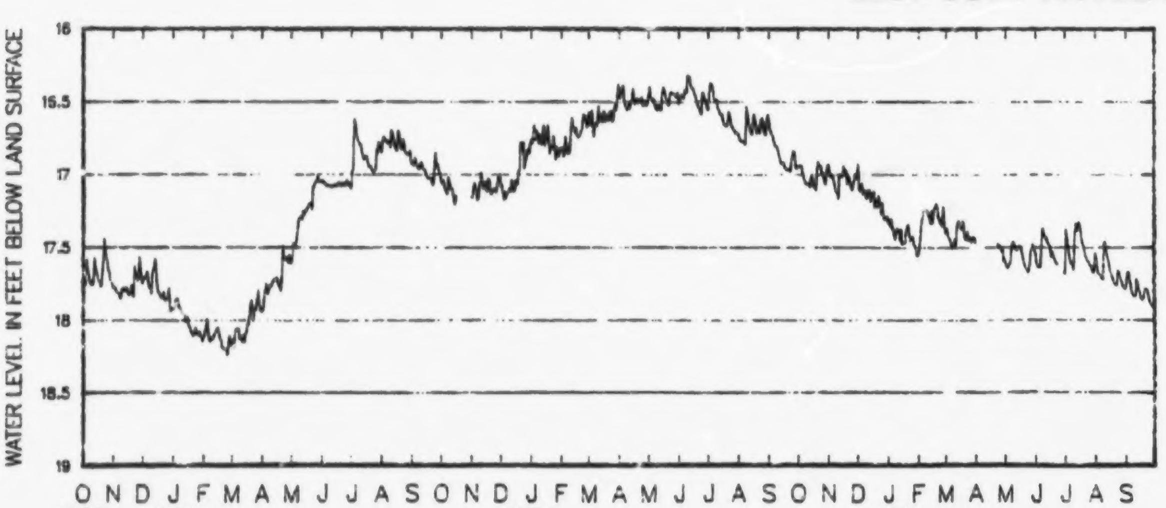

JEFFERSON COUNTY

381050085511001. Local number 51-10-1, (RR-29), map number 29.

LOCATION.--Lat 38°10'50", long 85°51'10", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 50 ft south of Rockford Lane, at the edge of an apartment house parking area, 0.3 mi southeast of the junction of Cane Run Road and Rockford Lane. Owner: Jefferson County.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 64 ft, screened 62.5-64.0 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personel.

DATUM.--Altitude of land-surface datum is 444.18 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 3.60 ft above land-surface datum.

REMARKS.--Water-quality sample Apr. 3, 1945.

PERIOD OF RECORD.--April 1945 to current year. April 1945 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.80 ft below land-surface datum, Apr. 16, 1980; lowest measured, 37.61 ft below land-surface datum, Mar. 21, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	25.02	Apr. 23, 1986	25.14

381102085512102. Local number 51-11-2, map number 30.

LOCATION.--Lat 38°11'02", long 85°51'21", Hydrologic Unit 05140101, County Code 111, at the east edge of a barn, behind a farmhouse at 4616 Cane Run Road, 650 ft southwest of the junction of Cane Run Road and Lees Lane, in Louisville. Owner: Kaufman Brothers.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Driven unused water-table well, diameter 2.5 in, depth 53 ft, case and screened.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 452.26 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.35 ft above land-surface datum.

REMARKS.--Water-quality samples Apr. 4, 1944 to July 15, 1981.

PERIOD OF RECORD.--January 1944 to current year. January 1944 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.99 ft below land-surface datum, May 3, 1979; lowest measured, 50.10 ft below land-surface datum, Feb. 9, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	38.40	Apr. 24, 1986	38.41

381108085511301. Local numbers 51-11-4, (RR-31), map number 31.

LOCATION.--Lat 38°11'08", long 85°51'13", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 1 ft west of a steel pipe fence post, 0.1 mi northeast of the junction of Cane Run Road and Rockford Lane, at a former homesite in Louisville. Owner: Jefferson County.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 61 ft, screened 59.5-61.0 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 445.66 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 0.10 ft above land-surface datum.

PERIOD OF RECORD.--May 1945 to current year. May 1945 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.11 ft below land-surface datum, May 3, 1979; lowest measured, 46.18 ft below land-surface datum, Mar. 27, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	30.93	Apr. 23, 1986	30.80

381123085491401. Local numbers 49-11-1, (RR-32), map number 33.
LOCATION.--Lat 38°11'23", long 85°49'14", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, on the east edge of a private driveway, at 2134 Garrs Lane, 150 ft south of Garrs Lane, 400 ft southeast of the junction of Garrs and Eden Lanes, in Shively. Owner: Louis Risinger.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 108 ft, screened 106.5-108.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 455.55 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 2.60 ft above land-surface datum.
PERIOD OF RECORD.--May 1945 to current year. May 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.86 ft below land-surface datum, Apr. 25, 1985; lowest measured, 45.76 ft below land-surface datum, Mar. 21, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	27.42	Apr. 23, 1986	27.83

381124085514601. Local number A-2-d, map number 34.
LOCATION.--Lat 38°11'24", long 85°51'46", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 6 ft west of sidewalk, 9 ft west of concrete curb on west side of Ladd Avenue; 0.15 mi north of junction of Lees Lane and Ladd Avenue, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 98 ft, screened 97-100 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 439.1 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.
REMARKS.--EPA, Mill Creek EIS test well.
PERIOD OF RECORD.--October 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.30 ft below land-surface datum, Apr. 22, 1985; lowest measured, 32.79 ft below land-surface datum, Apr. 28, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	30.90	Apr. 23, 1986	Destroyed

381130085515001. Local number 51-11-1, map number 35.
LOCATION.--Lat 38°11'30", long 85°51'50", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in a concrete well pit on the west side of a tool shed at the Thieneman Brothers vegetable farm, 0.3 mi northeast of the junction of Camp Ground Road and Lees Lane, in Louisville. Owner: Thieneman Brothers.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in, depth 70 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 453.64 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.00 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby well.
PERIOD OF RECORD.--February 1944 to current year. February 1944 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.77 ft below land-surface datum, Apr. 23, 1986; lowest measured, 59.80 ft below land-surface datum, Jan. 24, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	46.43	Apr. 23, 1986	44.77

JEFFERSON COUNTY

381139085502301. Local number 81-2, map number 36.
LOCATION.--Lat 38°11'39", long 85°50'23", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 12 ft west of west bank of a drainage ditch, 21 ft northeast of west end of guardrail, 30 ft north of north edge of blacktop on Crums Lane, 40 ft northwest of northwest corner of concrete bridge, 1,000 ft east of junction of Cane Run Road and Crums Lane, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 54 ft, screened 41.5-43.5 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 444.91 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 2.94 ft above land-surface datum.
PERIOD OF RECORD.--May 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.59 ft below land-surface datum, Apr. 22, 1985; lowest measured, 29.30 ft below land-surface datum, Apr. 29, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 1, 1985	26.84	Apr. 23, 1986	27.22

381142085475702. Local numbers, 47-11-4, (RR-42), map number 37.
LOCATION.--Lat 38°11'42", long 85°47'57", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the concrete curb on the west side of Manslick Road, 0.1 mi south of junction of Manslick Road and Berry Boulevard, in Louisville. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 103 ft, screened 101.5-103.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 453.91 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--July 1945 to current year. July 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.02 ft below land-surface datum, Apr. 25, 1985; lowest measured, 49.27 ft below land-surface datum, Apr. 5, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	22.13	Apr. 21, 1986	22.40

381143085465801. Local numbers 46-11-2, (RR-25), map number 38.
LOCATION.--Lat 38°11'43", long 85°46'58", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in the center of the concrete sidewalk at the driveway to a Catholic Church, 100 ft northeast of the junction of Taylor Boulevard and Hathaway Street, in Louisville. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 60 ft, screened 59-60 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 458.66 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 0.97 ft below land-surface datum.
REMARKS.--Water quality sample Mar. 1, 1945.
PERIOD OF RECORD.--March 1945 to current year. March 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.42 ft below land-surface datum, Oct. 31, 1985; lowest measured, 52.63 ft below land-surface datum, Apr. 25, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	24.42	Apr. 21, 1986	24.82

381155085483401. Local number 48-11-1, map number 39.
LOCATION.--Lat 38°11'55", long 85°48'34", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, under a pine tree behind house at 1910 Mathis Lane, 0.3 mi west of Dixie Highway, in Louisville. Owner: Charles Mathis.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.5 in, depth 64 ft, screened 62-64 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 461.04 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.80 ft above land-surface datum.
PERIOD OF RECORD.--February 1944 to current year. February 1944 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.91 ft below land-surface datum, Apr. 25, 1985; lowest measured, 55.20 ft below land-surface datum, Mar. 22, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	31.18	Apr. 23, 1986	31.61

381157085510201. Local numbers 51-11-6, (RR-39), map number 40.
LOCATION.--Lat 38°11'57", long 85°51'02", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at a farm gate, 20 ft north of Shanks Lane, 0.5 mi west of Cane Run Road, in Louisville. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 112 ft, screened 110-112 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 446.27 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 5.17 ft above land-surface datum.
PERIOD OF RECORD.--June 1945 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.42 ft below land-surface datum, June 14, 1980; lowest measured, 57.62 ft below land-surface datum, Feb. 25, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 1, 1985	37.23	Apr. 23, 1986	35.99

381204085455301. Local number CP-16, map number 41.
LOCATION.--Lat 38°12'04", long 85°45'53", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, near the south end of Wayside Park, 32 ft west of South Third Street curb, 52 ft east of Oakdale Avenue curb, 160 ft north of intersection with Southern Parkway, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered well, diameter 1.5 in, depth 23 ft, screened 21-23 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 456.82 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--May 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.46 ft below land-surface datum, Apr. 24, 1984; lowest measured, 13.56 ft below land-surface datum, Nov. 23, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	12.80	Apr. 21, 1986	12.79

JEFFERSON COUNTY

381207085484601. Local numbers 48-12-15, (RR-41), map number 42.
LOCATION.--Lat 38°12'07", long 85°48'46", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, on the east edge of a private driveway at the south end of a hedge, 3 ft west of a chain link fence, 100 ft northeast of junction of Farnsley and Janell Roads, in Shively. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 91 ft, screened 89.5-91.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 457.25 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 0.12 ft below land-surface datum.
REMARKS.--Water-quality sample June 29, 1945.
PERIOD OF RECORD.--June 1945 to current year. June 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.68 ft below land-surface datum, Apr. 25, 1985; lowest measured, 52.81 ft below land-surface datum, Mar. 22, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 4, 1985	29.11	Apr. 23, 1986	29.51

381209085472101. Local numbers 47-12-3, (C-7), map number 43.
LOCATION.--Lat 38°12'09", long 85°47'21", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in an open field near a sewer manhole, 200 ft west of the west end of Weyler Avenue, 0.2 mi east of 7th Street Road and Yellowstone Distillery, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 97 ft, screened 95-97 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 448.60 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 2.75 ft above land-surface datum.
PERIOD OF RECORD.--October 1935 to current year. October 1935 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.95 ft below land-surface datum, Apr. 25, Oct. 31, 1985; lowest measured, 52.19 ft below land-surface datum, Feb. 19, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	15.95	Apr. 21, 1986	16.30

381212085473801. Local numbers 47-12-2, (C-6), map number 44.
LOCATION.--Lat 38°12'12", long 85°47'38", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 100 ft north of the north entrance gate to the Yellowstone Distillery, 0.1 mi west of 7th Street Road, in Shively. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 102 ft, screened 100-102 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 453.59 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--October 1935 to current year. October 1935 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.98 ft below land-surface datum, Apr. 25, 1985; lowest measured, 59.63 ft below land-surface datum, Feb. 19, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	20.99	Apr. 21, 1986	21.41

JEFFERSON COUNTY

381213085521701. Local numbers 52-12-2, (RR-22), map number 45.

LOCATION.--Lat 38°12'13", long 85°52'17", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 50 ft south of Ohio River at the Stauffer Chemical Company Plant, 0.9 mi north of junction of Camp Ground Road and Lees Lane, in Louisville. Owner: Stauffer Chemical Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 101 ft, screened 99-101 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 434.30 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 4.16 ft above land-surface datum.

REMARKS.--Water levels affected by Ohio River. Water-quality sample collected Feb. 12, 1945.

PERIOD OF RECORD.--August 1945 to current year. August 1945 to September 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.50 ft below land-surface datum, Apr. 20, 1948; lowest measured, 51.79 ft below land-surface datum, June 18, 1962.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	45.72	Apr. 23, 1986	40.91

381221085475001. Local numbers 47-12-1, (C-5), map number 46.

LOCATION.--Lat 38°12'21", long 85°47'50", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the old Frankfort Four Roses Distillery, 60 ft north of a whiskey storage warehouse, 600 ft east of junction of Dixie Highway and Ralph Avenue, in Shively. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 96 ft, screened 94-96 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 462.93 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 4.10 ft above land-surface datum.

PERIOD OF RECORD.--October 1935 to current year. October 1935 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.74 ft below land-surface datum, Nov. 01, 1985; lowest measured, 71.06 ft below land-surface datum, Feb. 2, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 1, 1985	31.74	Apr. 23, 1986	32.37

JEFFERSON COUNTY

381222085505201. Local numbers 50-12-16, (RR-27), map number 47.

LOCATION.--Lat 38°12'22", long 85°50'52", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, on the south edge of Kramer's Lane, at the east side of the entrance driveway to Marathon Oil Company storage terminal, 300 ft southwest of the junction of Camp Ground Road and Kramers Lane, in Louisville. Owner: Jefferson County.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 112 ft, screened 110.5-112.0 ft.

INSTRUMENTATION.--ADR recorder--60-minute punch.

DATUM.--Altitude of land-surface datum is 445.58 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 3.40 ft above land-surface datum.

REMARKS.--Water level affected by pumping from nearby wells. Water-quality sample collected Mar. 23, 1945.

PERIOD OF RECORD.--March 1945 to current year. March 1945 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.24 ft below land-surface datum, June 9, 1984; lowest measured, 68.37 ft below land-surface datum, Oct. 7, 1963.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 1200

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41.48	41.92	41.67	39.98	40.14	39.85	38.97	39.03	39.67	40.20	40.52	41.02
2	41.50	41.98	41.74	39.92	40.14	39.77	38.92	39.06	39.72	40.23	40.54	41.04
3	41.51	41.99	41.68	39.93	40.08	39.79	38.89	39.09	39.73	40.25	40.56	41.06
4	41.51	42.00	41.63	39.81	40.06	39.74	38.85	39.08	39.75	40.26	40.57	41.08
5	41.54	42.01	41.57	39.86	40.08	39.67	38.82	39.07	39.76	40.28	40.58	41.10
6	41.56	42.00	41.57	39.80	40.01	39.68	38.78	39.11	39.78	40.30	40.58	41.13
7	41.57	42.05	41.51	39.84	40.13	39.67	38.74	39.13	39.79	40.32	40.60	41.15
8	41.59	42.05	41.49	39.82	40.14	39.59	38.72	39.15	39.81	40.33	40.61	41.17
9	41.61	42.05	41.44	39.76	40.17	39.54	38.73	39.18	39.81	40.33	40.63	41.18
10	41.63	42.06	41.40	39.76	40.15	39.46	38.69	39.19	39.81	40.36	40.64	41.19
11	41.65	42.09	41.31	39.74	40.20	39.50	38.68	39.20	39.82	40.36	40.66	41.20
12	41.67	42.07	41.28	39.72	40.22	39.39	38.68	39.23	39.86	40.38	40.68	41.25
13	41.70	42.05	41.26	39.77	40.23	39.36	38.71	39.24	39.89	40.38	40.68	41.27
14	41.69	42.08	41.19	39.73	40.14	39.33	38.68	39.28	39.90	40.38	40.70	41.27
15	41.74	42.08	41.11	39.79	40.23	39.33	38.75	39.28	39.92	40.39	40.70	41.29
16	41.76	42.09	41.02	39.78	40.15	39.33	38.74	39.33	39.94	40.40	40.72	41.32
17	41.77	42.09	40.95	39.78	40.15	39.31	38.78	39.33	39.99	40.41	40.74	41.32
18	41.78	42.03	40.93	39.75	40.12	39.23	38.79	39.37	40.00	40.42	40.76	41.34
19	41.80	42.03	40.85	39.76	40.08	39.33	38.81	39.41	40.01	40.42	40.77	41.37
20	41.82	42.07	40.78	39.80	40.07	39.37	38.71	39.42	40.04	40.42	40.79	41.36
21	41.81	42.03	40.70	39.78	40.13	39.34	38.80	39.43	40.05	40.44	40.82	41.39
22	41.82	42.01	40.57	39.89	40.06	39.28	38.88	39.46	40.07	40.45	40.82	41.39
23	41.83	41.98	40.51	39.89	40.04	39.23	38.91	39.48	40.08	40.46	40.84	41.41
24	41.86	41.99	40.46	39.88	40.02	39.24	38.90	39.51	40.10	40.46	40.87	41.43
25	41.87	41.94	40.41	39.91	39.98	39.18	38.89	39.53	40.12	40.47	40.89	41.45
26	41.88	41.91	40.28	39.92	39.86	39.17	38.92	39.55	40.14	40.49	40.89	41.46
27	41.90	41.88	40.25	40.01	39.92	39.16	38.93	39.58	40.15	40.49	40.93	41.48
28	41.92	41.86	40.19	40.03	39.91	39.12	38.93	39.61	40.15	40.48	40.96	41.50
29	41.93	41.80	40.14	40.10	---	39.08	38.99	39.62	40.17	40.50	40.97	41.51
30	41.93	41.78	40.06	40.14	---	39.05	38.98	39.64	40.18	40.50	40.98	41.53
31	41.91	---	40.01	40.16	---	39.02	---	39.65	---	40.53	41.00	---
MAX	41.93	42.09	41.74	40.16	40.23	39.85	38.99	39.65	40.18	40.53	41.00	41.53
MIN	41.48	41.78	40.01	39.72	39.86	39.02	38.68	39.03	39.67	40.20	40.52	41.02

WTR YR 1986 HIGH 38.68 LOW 42.09

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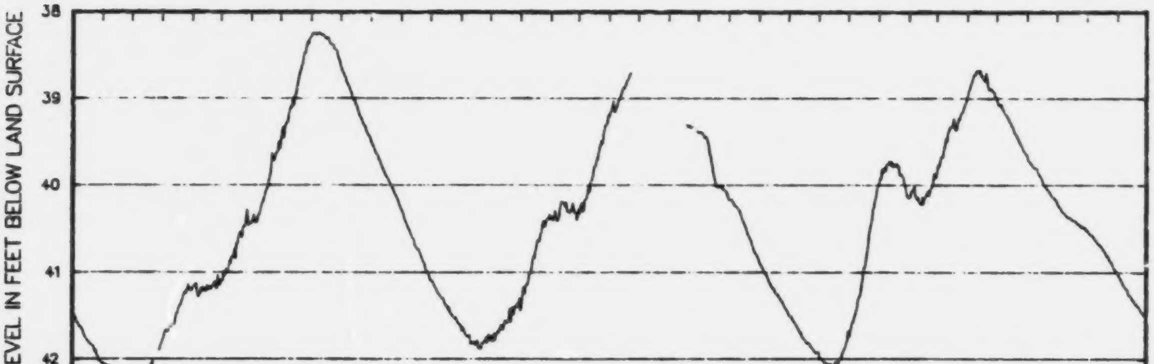

JEFFERSON COUNTY

381224085474001. Local number 47-12-19, (owner's no. 1), map number 48.
LOCATION.--Lat 38°12'24", long 85°47'40", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, behind the fermentation building, at the Early Times Distillery, 1,500 ft northeast of the junction of Dixie Highway and Ralph Avenue, in Louisville. Owner: Brown and Forman Distillers, Inc.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in, depth 104 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 456.83 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 2.43 ft above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby wells.
PERIOD OF RECORD.--March 1947 to current year. March 1947 to September 1976 published in hydrograph form and on file at district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.97 ft below land-surface datum, Apr. 25, 1985; lowest measured, 62.91 ft below land-surface datum, Nov. 15, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 1, 1985	25.00	Apr. 23, 1986	25.67

381229085510201. Map number 49.
LOCATION.--Lat 38°12'29", long 85°51'02", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the north end of oil storage tank field at the Triangle Refinery, 750 ft northwest of intersection of Camp Ground Road and Kramers Lane, in Louisville. Owner: Triangle Refinery.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 68.8 ft, screened 66.8-68.8 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 450.57 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--September 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.00 ft below land-surface datum, Apr. 23, 1986; lowest measured, 56.59 ft below land-surface datum, Nov. 28, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	52.39	Apr. 23, 1986	47.00

JEFFERSON COUNTY

381246085470601. Local numbers 47-12-4, (owner's number TW-2), map number 50.
LOCATION.--Lat 38°12'46", long 85°47'06", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the southeast corner of Seagrams employee's parking lot, Seventh Street Road at Wathen Lane, 100 ft southeast of a Ranney collector well, in Louisville. Owner: Joseph E. Seagram and Sons Distillery.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 103 ft, cased and screened.
INSTRUMENTATION.--ADR recorder--60-minute punch.
DATUM.--Altitude of land-surface datum is 458.64 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 4.39 ft above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby collector well.
PERIOD OF RECORD.--October 1943 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.44 ft below land-surface datum, Jan. 11, 1985; lowest measured, 88.37 ft below land-surface datum, Mar. 9, 1944.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 1200

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.78	26.70	26.79	27.03	27.09	27.25	27.15	27.21	27.31	27.42	27.56	27.69
2	26.79	26.83	27.01	26.98	27.10	27.15	27.17	27.29	27.37	27.43	27.58	27.68
3	26.74	26.87	27.05	26.98	27.06	27.19	27.14	27.32	27.38	27.50	27.62	27.69
4	26.68	26.89	26.98	26.94	27.00	27.20	27.16	27.26	27.36	27.50	27.63	27.66
5	26.72	26.89	26.91	27.05	27.04	27.20	27.16	27.18	27.34	27.51	27.70	27.69
6	26.78	26.90	27.00	27.00	27.03	27.19	27.14	27.20	27.33	27.52	27.68	27.73
7	26.81	26.90	26.97	27.10	27.10	27.27	27.13	27.20	27.31	27.53	27.57	27.76
8	26.83	26.96	26.92	27.15	27.16	27.28	27.09	27.21	27.35	27.50	27.57	27.78
9	26.84	26.93	26.98	27.03	27.18	27.17	27.16	27.24	27.39	27.44	27.60	27.77
10	26.79	26.92	26.97	26.96	27.17	27.09	27.11	27.24	27.39	27.48	27.57	27.73
11	26.77	26.99	26.87	26.99	27.16	27.24	27.09	27.22	27.34	27.45	27.64	27.66
12	26.76	26.97	26.94	26.92	27.21	27.11	27.10	27.21	27.34	27.48	27.66	27.73
13	26.78	26.94	26.87	27.02	27.24	27.12	27.13	27.21	27.42	27.51	27.63	27.81
14	26.76	26.95	27.03	26.90	27.05	27.14	27.10	27.23	27.42	27.55	27.60	27.82
15	26.79	26.98	26.96	27.08	27.19	27.20	27.13	27.26	27.38	27.55	27.60	27.76
16	26.87	26.91	26.93	27.07	27.06	27.25	27.16	27.28	27.39	27.55	27.59	27.82
17	26.88	26.99	26.90	27.02	27.04	27.27	27.20	27.25	27.45	27.56	27.60	27.79
18	26.87	26.96	27.07	26.99	27.05	27.15	27.23	27.22	27.45	27.56	27.64	27.77
19	26.84	26.94	27.05	26.93	27.02	27.15	27.22	27.26	27.41	27.53	27.65	27.81
20	26.81	27.03	26.93	27.00	27.11	27.31	27.05	27.31	27.43	27.49	27.66	27.80
21	26.83	27.00	27.01	27.00	27.18	27.34	27.11	27.31	27.45	27.54	27.68	27.83
22	26.85	26.90	26.85	27.09	27.17	27.32	27.24	27.29	27.44	27.57	27.68	27.80
23	26.82	26.95	26.86	27.15	27.21	27.23	27.29	27.28	27.42	27.58	27.64	27.74
24	26.84	26.98	26.87	27.10	27.15	27.33	27.26	27.33	27.43	27.55	27.69	27.74
25	26.91	26.95	27.01	27.02	27.23	27.25	27.18	27.32	27.48	27.52	27.68	27.80
26	26.86	26.85	26.89	26.98	27.01	27.21	27.19	27.29	27.47	27.51	27.88	27.84
27	26.87	26.90	26.94	27.05	27.11	27.25	27.19	27.31	27.45	27.52	27.70	27.82
28	26.90	26.88	27.01	27.05	27.25	27.23	27.12	27.34	27.40	27.52	27.75	27.85
29	26.85	26.95	26.97	26.99	---	27.18	27.25	27.34	27.41	27.54	27.76	27.84
30	26.82	26.94	26.99	27.17	---	27.16	27.20	27.34	27.41	27.61	27.74	27.83
31	26.74	---	26.90	27.14	---	27.18	---	27.32	---	27.59	27.72	---
MAX	26.91	27.03	27.07	27.17	27.25	27.34	27.29	27.34	27.48	27.61	27.88	27.85
MIN	26.68	26.70	26.79	26.90	27.00	27.09	27.05	27.18	27.31	27.42	27.56	27.66

WTR YR 1986 HIGH 26.68 LOW 27.88

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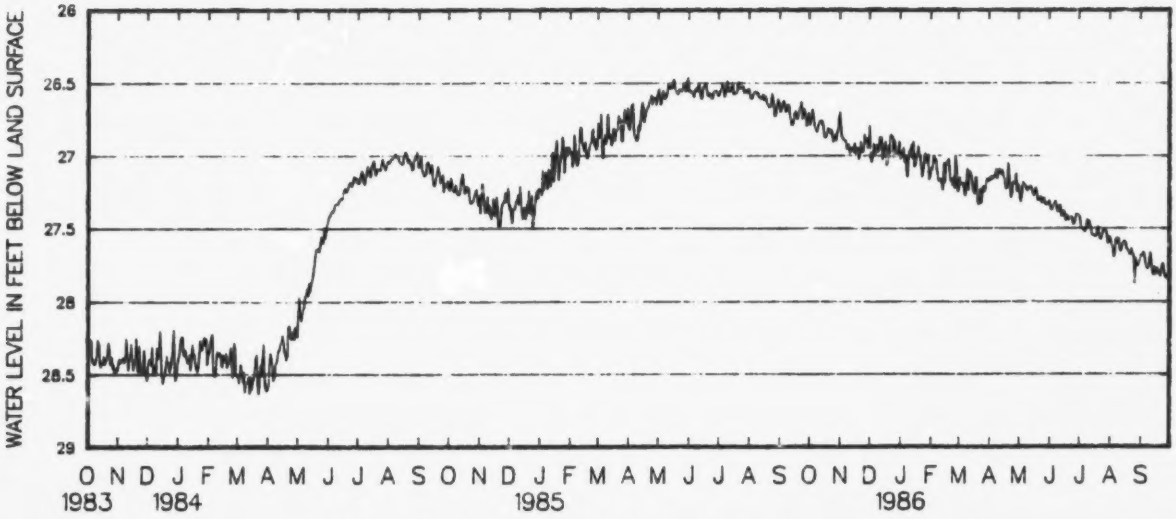


JEFFERSON COUNTY

381250085484901. Local numbers 48-12-1, (C-2), map number 51.

LOCATION.--Lat 38°12'50", long 85_48'49", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in an open field at a sewer manhole, 0.2 mi east of the junction of Cane Run Road and Camp Ground Road, in Louisville. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 117 ft, screened 115-117 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 453.61 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1935 to current year. October 1935 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.44 ft below land-surface datum, Apr. 25, 1985 and Apr. 26, 1984; lowest measured, 67.95 ft below land-surface datum, July 12, 1960.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	31.87	Apr. 23, 1986	32.46

381251085483501. Local numbers 48-12-2, (C-3), map number 52.

LOCATION.--Lat 38°12'51", long 85°48'35", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in an open field, 200 ft east of Tucker Avenue, 300 ft north of the Stitzel-Weller Distillery, in Louisville. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 117 ft, screened 115-117 ft.

INSTRUMENTATION.--Bi-annual measuremsent with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 465.95 ft above National Geodetic Vertical Datum. Measurin point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by pumping from nearby wells.

PERIOD OF RECORD.--October 1935 to current year. October 1935 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.72 ft below land-surface datum, Apr. 25, 1985; lowest measured, 78.99 ft below land-surface datum, Nov. 1, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	42.08	Apr. 23, 1986	42.70

381251085500501. Local numbers 50-12-18, (RR-35), map number 53.

LOCATION.--Lat 38°12'51", long 85°50'05", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 60 ft north of Camp Ground Road, 1,500 ft northeast of junction of Camp Ground Road and Ralph Avenue, in Louisville. Owner: Air Reduction Company, Inc.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 120 ft, screened 118-120 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 455.54 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 5.02 ft above land-surface datum.

REMARKS.--Water levels affected by pumping from nearby wells. Water-quality sample collected May 24, 1945.

PERIOD OF RECORD.--May 1945 to current year. May 1945 to September 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.25 ft below land-surface datum, Apr. 25, 1985; lowest measured, 78.35 ft below land-surface datum, Mar. 20, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 1, 1985	50.89	Apr. 23, 1986	49.26

381256085471501. Local numbers 47-12-14, (TW-2), map number 54.
LOCATION.--Lat 38°12'56", long 85°47'15", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in a brick pump house (building number 54) at the National Distillers Products Company Plant, 100 ft north of Wathen Lane, 0.4 mi east of Dixie Highway, in Louisville. Owner: National Distillers Products Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in, depth 97 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 454.37 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 7.72 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby wells.
PERIOD OF RECORD.--October 1941 to current year. October 1941 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.57 ft below land-surface datum, Apr. 24, 1985; lowest measured, 75.98 ft below land-surface datum, Mar. 31, Apr. 10, May 6, 1943.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	22.89	Apr. 23, 1986	23.38

381257085471801. Local numbers 47-12-15, (TW-4), map number 55.
LOCATION.--Lat 38°12'57", long 85°47'18", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in the truck parking lot at the National Distillers Products Company Plant, 50 ft north of Wathen Lane, 0.3 mi east of Dixie Highway, in Louisville. Owner: National Distillers Products Company
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in, depth 84 ft, cased and screened.
INSTRUMENTAION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 455.07 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 4.70 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby wells.
PERIOD OF RECORD.--July 1942 to current year. July 1942 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.71 ft below land-surface datum, Apr. 24, 1985; lowest measured, 72.47 ft below land-surface datum, Feb. 19, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	23.93	Apr. 23, 1986	24.35

381259085471502. Local numbers 47-12-16. (TW-1), map number 56.
LOCATION.--Lat 38°12'59", long 85°47'15", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, between two whiskey storage warehouses at the National Distillers Products Company Plant, 300 ft north of Wathen Lane, 0.4 mi east of Dixie Highway, in Shively. Owner: National Distillers Products Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in, depth 99 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 454.43 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 6.25 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby wells.
PERIOD OF RECORD.--October 1941 to current year. October 1941 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.89 ft below land-surface datum, Apr. 24, 1985; lowest measured, 72.70 ft below land-surface datum, Feb. 6, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	23.23	Apr. 23, 1986	23.73

JEFFERSON COUNTY

381259085511002. Local numbers 51-13-1, (RR-21), map number 57.

LOCATION.--Lat 38°12'59", long 85°51'10", Hydrologic Unit 05140101, County Code 111, Louisville west quadrangle, on south bank of Ohio River directly behind the Du Pont Chemical Company Plant, 200 ft northeast of a large brick pump house, 0.8 mi southwest of junction of Ralph Avenue and Camp Ground Road, in Louisville. Owner: Du Pont Chemical Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 107 ft, screened 105.5-107.0 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 440.20 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 1.90 ft above land-surface datum.

PERIOD OF RECORD.--February 1945 to current year. February 1945 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.87 ft below land-surface datum, Apr. 9, 1975; lowest measured, 64.39 ft below land-surface datum, Nov. 12, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	55.60	Apr. 23, 1986	49.06

381305085501302. Map number 58.

LOCATION.--Lat 38°13'05", long 85°50'13", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at Reynolds Metals Plant Number 5, near southeast corner of a metal garage, 0.4 mi north of the junction of Camp Ground Road and Ralph Avenue, in Louisville. Owner: Reynolds Metals Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in, depth 111 ft, screened 103.7-120.0 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 450.25 ft above National Geodetic Vertical Datum. Measuring point: Top of 2 in pipe in pump base, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--October 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.13 ft below land-surface datum, Apr. 26, 1984; lowest measured, 52.95 ft below land-surface datum, Oct. 31, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	52.95	Apr. 23, 1986	49.79

381309085505302. Local numbers 50-13-56 (RR-24), map number 59.

LOCATION.--Lat 38°13'09", long 85°50'53", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, on what was once south bank of Paddy Run (now covered), between the Ohio River floodwall and south bank of the Ohio River, directly behind the Du Pont Chemical Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 92 ft, screened 90.5-92.0 ft.

INSTRUMENTATION.--Bi-annaual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 425.78 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 2.38 ft below land-surface datum.

PERIOD OF RECORD.--February 1945 to current year. February 1945 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.00 ft below land-surface datum, Apr. 15, 1970; lowest measured, 49.71 ft below land-surface datum, Jan. 25, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	38.29	Apr. 23, 1986	32.98

JEFFERSON COUNTY

381313085495501. Local numbers 49-13-25, (TW-2), map number 60.
LOCATION.--Lat 38°13'13", long 85°49'55", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 10 ft east of pump well number 4, at the B. F. Goodrich Company Plant, 50 ft west of an electric power substation, 0.25 mi south of Bells Lane, in Louisville. Owner: B. F. Goodrich Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2 in, depth 100 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 452.26 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.40 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby well.
PERIOD OF RECORD.--August 1947 to current year. August 1947 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.57 ft below land-surface datum, Apr. 27, 1982; lowest measured, 97.09 ft below land-surface datum, Mar. 29, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 1, 1985	54.42	Apr. 23, 1986	53.70

381315085501401. Local numbers 50-13-65, (TW-11), map number 61.
LOCATION.--Lat 38°13'15", long 85°50'14", Hydrologic Unit 05140101, County Code 111, at the old National Carbide Plant, 500 ft southeast of the liquid nitrogen unit, 1,000 ft south of Bells Lane, in Louisville. Owner: Air Reduction Company, Inc.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 107 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 449.69 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.60 ft above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby wells.
PERIOD OF RECORD.--June 1956 to current year. June 1956 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.48 ft below land-surface datum, Apr. 26, 1984; lowest measured, 92.02 ft below land-surface datum, Dec. 21, 1959.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 1, 1985	53.14	Apr. 23, 1986	49.64

JEFFERSON COUNTY

381315085502602. Local numbers 50-13-79, (NC-TW-D), map number 62.

LOCATION.--Lat 38°13'15", long 85°50'26", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 800 ft south of Bells Lane, 0.3 mi east of the Ohio River, at the National Carbide Plant in Louisville. Owner: Air Reduction Company, Inc.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 108 ft, cased and screened.

INSTRUMENTATION.--ADR recorder--60-minute punch.

DATUM.--Altitude of land-surface datum is 448.68 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 4.72 ft above land-surface datum.

REMARKS.--Water levels affected by pumping from nearby wells.

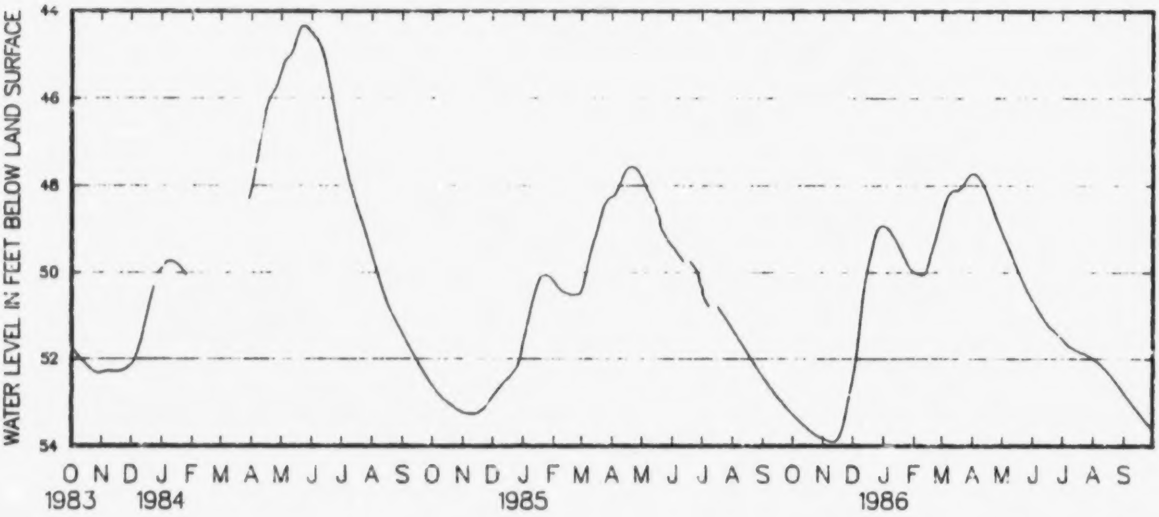
PERIOD OF RECORD.--January 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.34 ft below land-surface datum, May 23, 1984; lowest measured, 87.29 ft below land-surface datum, Nov. 13, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 1200

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53.28	53.83	52.44	48.93	50.01	48.67	47.73	49.09	50.67	51.56	52.01	52.80
2	53.30	53.83	52.32	48.94	50.02	48.58	47.73	49.15	50.70	51.58	52.02	52.83
3	53.33	53.85	52.19	48.95	50.03	48.50	47.73	49.20	50.75	51.61	52.04	52.86
4	53.35	53.86	52.04	48.97	50.03	48.43	47.75	49.26	50.78	51.64	52.06	52.89
5	53.37	53.87	51.86	48.99	50.04	48.36	47.76	49.31	50.82	51.66	52.07	52.92
6	53.39	53.88	51.66	49.01	50.05	48.30	47.78	49.36	50.86	51.69	52.09	52.95
7	53.41	53.89	51.46	49.04	50.05	48.25	47.81	49.41	50.90	51.70	52.11	52.98
8	53.44	53.90	51.23	49.07	50.06	48.22	47.84	49.47	50.94	51.72	52.13	53.01
9	53.46	53.90	51.02	49.11	50.06	48.19	47.87	49.52	50.97	51.74	52.15	53.04
10	53.48	53.91	50.82	49.14	50.06	48.16	47.91	49.58	51.01	51.75	52.18	53.07
11	53.50	53.91	50.62	49.18	50.04	48.14	47.95	49.63	51.05	51.76	52.20	53.10
12	53.52	53.91	50.45	49.21	50.02	48.13	47.99	49.69	51.08	51.77	52.23	53.13
13	53.54	53.90	50.29	49.25	49.99	48.12	48.04	49.74	51.12	51.79	52.24	53.16
14	53.56	53.88	50.16	49.29	49.92	48.11	48.09	49.80	51.15	51.80	52.27	53.19
15	53.58	53.86	50.04	49.34	49.64	48.11	48.14	49.85	51.18	51.82	52.29	53.22
16	53.60	53.83	49.92	49.38	49.76	48.11	48.20	49.91	51.21	51.83	52.32	53.25
17	53.62	53.80	49.81	49.43	49.67	48.11	48.26	49.97	51.24	51.84	52.35	53.28
18	53.64	53.75	49.71	49.48	49.58	48.10	48.32	50.02	51.27	51.85	52.37	53.30
19	53.66	53.69	49.61	49.52	49.50	48.07	48.38	50.07	51.29	51.86	52.40	53.33
20	53.67	53.62	49.50	49.57	49.42	48.06	48.44	50.12	51.31	51.87	52.43	53.36
21	53.69	53.55	49.40	49.62	49.35	48.04	48.50	50.17	51.33	51.87	52.46	53.39
22	53.71	53.46	49.30	49.67	49.28	48.01	48.57	50.22	51.35	51.88	52.49	53.42
23	53.73	53.36	49.21	49.72	49.21	47.98	48.63	50.27	51.37	51.89	52.52	53.44
24	53.74	53.25	49.12	49.77	49.12	47.94	48.70	50.32	51.40	51.90	52.55	53.47
25	53.76	53.14	49.07	49.82	49.04	47.90	48.76	50.37	51.42	51.91	52.58	53.49
26	53.77	53.02	49.02	49.85	48.94	47.86	48.82	50.41	51.44	51.93	52.61	53.52
27	53.78	52.90	48.98	49.89	48.84	47.83	48.87	50.46	51.47	51.94	52.64	53.55
28	53.79	52.78	48.96	49.92	48.75	47.80	48.93	50.50	51.49	51.95	52.67	53.57
29	53.80	52.67	48.94	49.95	---	47.77	48.98	50.54	51.51	51.96	52.70	53.60
30	53.81	52.56	48.93	49.97	---	47.75	49.04	50.58	51.53	51.98	52.73	53.62
31	53.82	---	48.92	49.99	---	47.74	---	50.63	---	51.99	52.77	---
MAX	53.82	53.91	52.44	49.99	50.06	48.67	49.04	50.63	51.53	51.99	52.77	53.62
MIN	53.28	52.56	48.92	48.93	48.75	47.74	47.73	49.09	50.67	51.56	52.01	52.80

WTR YR 1986 HIGH 47.73 LOW 53.91



JEFFERSON COUNTY

381316085502101. Local numbers 50-13-77, (TW-12), map number 63

LOCATION.--Lat 38°13'16", long 85°50'21", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 200 ft south of the liquid nitrogen unit at the old National Carbide Plant, 900 ft southeast of Bells Lane, in Louisville. Owner: Air Reduction Company, Inc.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 107 ft, cased and screened.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 447.69 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.70 ft above land-surface datum.

REMARKS.--Water levels affected by pumping from nearby wells.

PERIOD OF RECORD.--January 1956 to current year. January 1956 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.43 ft below land-surface datum, Apr. 26, 1984; lowest measured, 90.90 ft below land-surface datum, Oct. 13, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 1, 1985	51.40	Apr. 23, 1986	48.01

381320085464101. Local number CP-15, map number 64.

LOCATION.--Lat 38°13'20", long 85°45'41", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the northeast corner of Samuel Jones Park, Patton Court and South 13th Street, 14 ft south of chain link fence, 22 ft south of curb on south side of Patton Court, 45 ft west of curb on west side of south 13th Street. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 100 ft, screened 96.5-100.0 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface surface datum is 453.68 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--December 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.84 ft below land-surface datum, Apr. 23, 1985; lowest measured, 30.03 ft below land-surface datum, Dec. 14, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 28, 1985	23.12	Apr. 22, 1986	23.64

381324085460401. Local number 46-13-25, map number 65.

LOCATION.--Lat 38°13'24", long 85°46'04", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in an old pumping house across the alley from the northwest corner of the boiler house, at the American-Standard Company Plant, 1541 South 7th Street, in Louisville. Owner: American-Standard Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in, depth 105 ft, screened 91-105 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 461.49 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--March 1950 to current year. March 1950 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.10 ft below land-surface datum, Apr. 23, 1985; lowest measured, 70.05 ft below land-surface datum, Mar. 3, 1950.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 28, 1985	30.40	Apr. 22, 1986	31.05

JEFFERSON COUNTY

381331085491601. Local numbers 49-13-40, (RR-26), map number 66.
LOCATION.--Lat 38°13'31", long 85°49'40", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the southeast corner of Algonquin Parkway and 39th Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 115 ft, screened 113.5-115.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 450.43 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 1.40 ft above land-surface datum.
REMARKS.--Water-quality samples Mar. 13, 1945 to June 28, 1966.
PERIOD OF RECORD.--March 1945 to current year. March to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.01 ft below land-surface datum, Apr. 25, 1985; lowest measured, 76.25 ft below land-surface datum, Nov. 29, 1963.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	38.10	Apr. 22, 1986	37.59

381332085494001. Local numbers 49-13-5, (TW-10), map number 67.
LOCATION.--Lat 38°13'32", long 85°49'40", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 50 ft west of railroad tracks, 0.1 mi northwest of railroad crossing Bells Lane, in Louisville. Owner: B. F. Goodrich Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2 in, depth 115 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 456.47 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.20 ft above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby wells.
PERIOD OF RECORD.--January 1945 to current year. January 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.90 ft below land-surface datum, Oct. 31, 1984; lowest measured, 101.47 ft below land-surface datum, Aug. 24, 1959.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Nov. 1, 1985	50.52	Apr. 23, 1986	50.81

381338085481601. Local number, CP 8, map number 68.
LOCATION.--Lat 38°13'38", long 85°48'16", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the southwest corner of Algonquin Park, 20 ft east of Beech Street, 60 ft north of an alley, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 109.0 ft, screened 106-109 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 457.60 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--August 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.89 ft below land-surface datum, Apr. 23, 1985; lowest measured, 45.64 ft below land-surface datum, Aug. 4, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	35.15	Apr. 23, 1986	35.65

JEFFERSON COUNTY

381346085453801. Local number 45-13-2 (St. Patricks well), map number 69.
LOCATION.--Lat 38°13'46", long 85°45'38", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the rear of Van Brook Manor Nursing Home, 1382 South Third Street, in Louisville. Owner: Van Brook Manor, Inc.
AQUIFER.--Knox Dolomite of Early Ordovician age. Aquifer code: 367KNOX.
WELL CHARACTERISTICS.--Drilled artesian (flowing) gas test, diameter 1-3/4 in, depth 1952 ft, length of wooden casing unknown.
INSTRUMENTATION.--Bi-annual volumetric measurement by USGS personnel.
DATUM.--Altitude of land-surface datum is 458.15 ft above National Geodetic Vertical Datum. Measuring point: Valve at pressure gage, 0.30 ft below land-surface datum.
REMARKS.--Water-quality samples Feb. 9, 1938 to July 7, 1981.
PERIOD OF RECORD.--Februay 1971 to current year. February 1971 to September 1977 unpublished, on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Maximum water flow measured, 0.50 gal/min Mar. 6, 1978; minimum measured, zero flow (frozen) Jan. 31, 1977.

WATER FLOW, IN GALLONS PER MINUTE (GAL/MIN), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water flow	Date	Water flow
Oct. 29, 1985	0.18 gal/min	Apr. 22, 1986	0.18 gal/min

381346085454201. Local number CP 1, map number 70.
LOCATION.--Lat 38°13'46", long 85°45'42", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the southeast corner of Central Park, 100 ft north of a concrete retaining wall on Magnolia Street, 20 ft west of concrete retaining wall on South Fourth Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 106.2 ft, screened 103.2-106.2 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 459.86 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
REMARKS.--Water-quality sample collected June 16, 1978 to Sept. 17, 1981.
PERIOD OF RECORD.--June 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.98 ft below land-surface datum, Apr. 23, 1985; lowest measured, 41.23 ft below land-surface datum, June 16, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	30.50	Apr. 21, 1986	30.89

381355085465901. Local number 46-13-34, map number 71.
LOCATION.--Lat 38°13'55", long 85°46'59", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 50 ft southwest of a smokestack, at the Louisville Cooperage Company Plant (formerly Tobacco By-Products and Chemical Company), 1350 South 17th Street, in Louisville. Owner: Louisville Cooperage Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in, depth 85 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 458.76 ft above National Geodetic Vertical Datum. Measuring point: Top of steel plate well cover at plug, 1.13 ft above land-surface datum.
PERIOD OF RECORD.--April 1948 to current year. April 1948 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.09 ft below land-surface datum, Apr. 24, 1985; lowest measured, 79.80 ft below land-surface datum, Nov. 1, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 28, 1985	34.17	Apr. 22, 1986	34.77

GROUND-WATER LEVELS

JEFFERSON COUNTY

381400085445001. Local number CP 6, map number 72.

LOCATION.--Lat 38°14'00", long 85°44'45", Hydrologic Unit 05140101, County Code 111, Louisville East quadrangle, at the northwest corner of Shelby Park, 70 ft south of an alley, 80 ft east of South Jackson Street, 300 ft southeast of the junction of East Oak and South Jackson Streets, in Louisville. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 79.2 ft, screened 52.2-55.2 ft, 75.2-79.2 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 459.26 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--July 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.86 ft below land-surface datum, Oct. 30, 1984; lowest measured, 39.95 ft below land-surface datum, July 5, Aug. 4, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	32.00	Apr. 22, 1986	31.73

381406085463001. Local numbers 1 (south well), 78-1, map number 73.

LOCATION.--Lat 38°14'06", long 85°46'30", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the west edge of United Catalysts, Inc., west plant building, 100 ft southeast of intersection of 13th and Dumesnil Streets, in Louisville. Owner: United Catalysts, Inc.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled unused industrial water-table well, diameter 12 in, depth 114 ft, cased and screened.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 455.14 ft, National Geodetic Vertical Datum. Measuring point: Lower edge of 2 in pipe in concrete pump base, 0.40 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.45 ft below land-surface datum, Apr. 23, 1985; lowest measured, 35.63 ft below land-surface datum, May 5, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	27.87	Apr. 23, 1986	28.38

381417085500301. Local number 50-14-4 (RR-23), map number 74.

LOCATION.--Lat 38°14'17", long 85°50'03", Hydrologic Unit 05140101, County Code 111, at the Louisville Refining Company Plant, 1300 South Western Parkway, on top of Ohio River floodwall, 200 ft southeast of a river barge loading dock, in Louisville. Owner: Ashland Oil Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 101 ft, screened 99.5-101.0 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 453.83 ft, National Geodetic Vertical Datum. Measuring point: Top of plug, 5.60 ft above land-surface datum.

REMARKS.--Water-quality sample collected Feb. 15, 1945.

PERIOD OF RECORD.--February 1945 to current year. February 1945 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.22 ft below land-surface datum, Apr. 26, 1984; lowest measured, 77.08 ft below land-surface datum, Dec. 17, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	56.70	Apr. 22, 1986	54.65

JEFFERSON COUNTY

381424085454602. Local number CP 12A, map number 75.
LOCATION.--Lat 38°14'24", long 85°45'46", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the southwest corner of Ben F. Washer Park, 23.0 ft north of curb on west Kentucky Street, 38.0 ft east of curb on south Sixth Street, 45.5 ft northwest of a fire plug, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 91.0 ft, screened 74.5-76.5 ft, 87.0-91.0 ft.
INSTUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 455.72 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
REMARKS.--Replaces destroyed well 381424085454601 (CP-12), which was 20 ft north.
PERIOD OF RECORD.--October 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.36 ft below land-surface datum, Oct. 30, 1984; lowest measured, 29.88 ft below land-surface datum, Jan. 20, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	29.35	Apr. 22, 1986	29.65

381428085485701. Local number 78-6, map number 76.
LOCATION.--Lat 38°14'28", long 85°48'57", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at Virginia Avenue, I-264 South Exit, 19 ft east of curb on east side of exit road, 24 ft southeast of south end of a metal guardrail, 100 ft north of curb on north edge of Virginia Avenue, in Louisville. Owner: Kentucky Highway Department.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 98 ft, screened 96-98 ft.
INSTRUMENTATION.--Bi-annaul measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 440.28 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--February 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.58 ft below land-surface datum, Apr. 24, 1985; lowest measured, 29.75 ft below land-surface datum, Dec. 13, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	25.49	Apr. 22, 1986	25.21

381430085452602. Local number 45-14-69 (owner's number 3), map number 77.
LOCATION.--Lat 38°14'30", long 85°45'26", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in subbasement of the Cosmopolitan Building, 100 ft east of the junction of 3rd and West Kentucky Streets, in Louisville. Owner: Conna Corporation.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in, depth 88 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 455.45 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 11.50 ft below land-surface datum.
PERIOD OF RECORD.--December 1943 to current year. December 1943 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.89 ft below land-surface datum, Oct. 30, 1984; lowest measured, 73.89 ft below land-surface datum, Nov. 4, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 28, 1985	28.00	Apr. 21, 1986	27.99

GROUND-WATER LEVELS

JEFFERSON COUNTY

381430085472501. Local number CP-17, map number 78.

LOCATION.--Lat 38°14'30", long 85°47'25", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 21 ft west of the west curb on 22nd Street, 45 ft north of north curb on Greenwood Street, at the southeast corner of Victory Park, in Louisville. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 86.0 ft, screened 84.0-86.0 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 451.78 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--March 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.20 ft below land-surface datum, Apr. 23, 1985; lowest measured, 28.46 ft below land-surface datum, Apr. 23, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	26.51	Apr. 22, 1986	27.18

381441085465301. Local number 46-14-13, (owner's number 3), map number 79.

LOCATION.--Lat 38°14'41", long 85°46'53", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in a brick pump house at the Bernheim Distillery, 400 ft northwest of the junction of 17th and West Breckinridge Streets, in Louisville. Owner: Bernheim Distilling Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in, depth 111 ft, cased and screened.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 451.59 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.72 ft above land-surface datum.

REMARKS.--Water levels affected by pumping from nearby wells.

PERIOD OF RECORD.--October 1949 to current year. October 1949 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.00 ft below land-surface datum, Apr. 24, 1985; lowest measured, 79.96 ft below land-surface datum, Oct. 5, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 28, 1985	25.64	Apr. 22, 1986	26.08

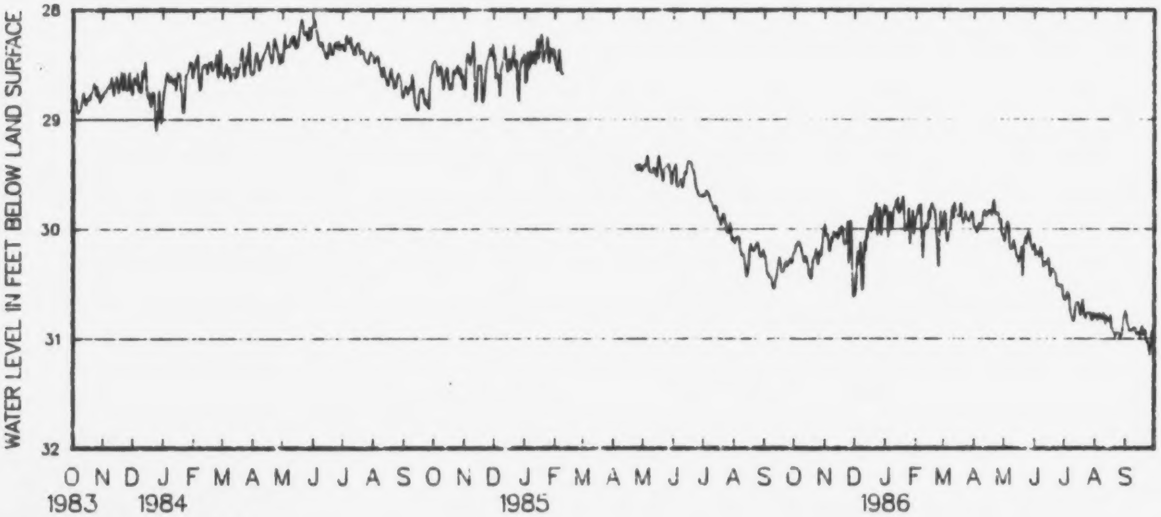
JEFFERSON COUNTY

381441085452701. Local number 45-14-71, (owner's number A-2), map number 80.
LOCATION.--Lat 38°14'41", long 85°45'27", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the Louisville Free Public Library, 301 West York Street, on east side of building at base of the TV-radio tower, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in, depth 105 ft, cased and screened.
INSTRUMENTATION.--ADR recorder--60-minute punch.
DATUM.--Altitude of land-surface datum is 454.23 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.00 ft above land-surface datum.
REMARKS.--Water-quality sample collected May 8, 1956.
PERIOD OF RECORD.--February 1937 to current year. February 1937 to September 1976 published in hydrograph form and on file at district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.09 ft below land-surface datum, May 20, 1984; lowest measured, 77.82 ft below land-surface datum, Sept. 18, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 1200

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.22	29.95	30.61	29.87	29.89	29.94	30.00	30.10	30.13	30.64	30.80	30.74
2	30.20	30.07	30.56	29.79	29.88	29.83	30.00	30.12	30.25	30.65	30.78	30.78
3	30.14	30.06	30.35	29.83	29.82	29.86	29.98	30.05	30.20	30.63	30.77	30.86
4	30.16	30.05	30.20	30.08	29.78	30.08	30.04	29.95	30.22	30.57	30.83	30.87
5	30.11	30.19	30.33	29.94	29.86	30.12	29.99	29.93	30.22	30.59	30.80	30.93
6	30.12	30.21	30.31	29.84	29.77	30.04	29.94	29.97	30.26	30.62	30.76	30.92
7	30.15	30.08	30.12	29.96	30.09	30.01	29.98	30.14	30.16	30.72	30.81	30.93
8	30.17	30.13	30.47	29.99	30.27	29.98	29.98	30.19	30.18	30.78	30.82	30.92
9	30.22	30.05	30.56	29.85	30.07	29.84	29.96	30.19	30.28	30.81	30.81	30.89
10	30.27	30.02	30.39	29.80	29.98	29.79	29.85	30.17	30.35	30.84	30.76	30.92
11	30.31	30.08	30.11	29.79	29.95	29.91	29.82	30.10	30.31	30.84	30.82	30.90
12	30.25	30.04	30.21	29.73	29.98	29.75	29.83	30.16	30.30	30.76	30.87	30.96
13	30.25	30.03	30.02	29.83	30.00	29.82	29.89	30.20	30.33	30.67	30.79	30.97
14	30.30	30.10	30.09	29.71	29.83	29.84	29.87	30.26	30.30	30.68	30.83	30.94
15	30.34	30.07	29.96	29.86	29.92	29.87	29.86	30.25	30.26	30.66	30.83	30.94
16	30.43	29.99	29.90	29.84	29.80	29.89	29.82	30.31	30.36	30.69	30.84	30.99
17	30.43	30.05	29.87	29.80	29.76	29.89	29.84	30.28	30.44	30.77	30.78	30.91
18	30.46	29.97	30.03	29.74	29.79	29.76	29.84	30.22	30.38	30.79	30.91	30.88
19	30.36	30.01	29.96	29.70	29.83	29.78	29.88	30.16	30.36	30.69	30.91	30.97
20	30.28	30.11	29.86	29.84	29.82	29.93	29.76	30.43	30.39	30.64	30.94	30.92
21	30.27	30.15	29.90	30.03	29.91	29.96	29.73	30.17	30.40	30.77	30.95	30.92
22	30.24	30.12	29.77	30.00	30.07	29.91	29.85	30.11	30.40	30.80	30.99	31.01
23	30.18	30.12	29.76	29.97	30.20	29.83	29.87	30.07	30.47	30.82	30.94	31.04
24	30.25	29.93	30.06	29.88	30.35	29.91	29.87	30.14	30.52	30.76	30.94	31.03
25	30.33	30.32	29.98	29.81	30.07	29.92	29.85	30.04	30.50	30.76	30.94	31.10
26	30.23	29.96	29.80	30.14	29.83	29.91	29.91	30.02	30.52	30.76	30.96	31.15
27	30.20	29.92	29.83	29.94	30.01	29.94	29.95	30.05	30.53	30.78	30.99	31.00
28	30.25	30.17	30.06	29.87	30.01	29.88	29.91	30.12	30.51	30.76	30.98	30.93
29	30.16	30.48	29.89	29.83	---	29.85	30.06	30.17	30.52	30.84	30.93	31.04
30	30.07	30.62	29.86	30.05	---	29.84	30.04	30.20	30.61	30.82	30.83	31.12
31	30.00	---	29.77	29.96	---	29.92	---	30.15	---	30.76	30.79	---
MAX	30.46	30.62	30.61	30.14	30.35	30.12	30.06	30.43	30.61	30.84	30.99	31.15
MIN	30.00	29.92	29.76	29.70	29.76	29.75	29.73	29.93	30.13	30.57	30.76	30.74

WTR YR 1986 HIGH 29.70 LOW 31.15



JEFFERSON COUNTY

381447085454001. Local number 45-14-66, (owner's number 5), map number 81.

LOCATION.--Lat 38°14'47", long 85°45'40", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at Courier Journal-Louisville Times, Sixth and Broadway Streets in subbasement below building entrance walkway from Armory Street, in Louisville. Owner: Courier Journal-Louisville Times, Inc.

AQUIFER.--Louisville Limestone and Laurel Dolomite of Middle Silurian age. Aquifer code: 354LVLL.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in, depth 190 ft, cased to 121 ft, open-hole 121-190 ft.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Altitude of land-surface datum is 455.83 ft above National Geodetic Vertical Datum. Measuring point: Top of metal well cover, 15.87 ft below land-surface datum.

REMARKS.--Earthquake monitor well. Water-quality samples collected Aug. 29, 1949 and Aug. 18, 1950.

PERIOD OF RECORD.--October 1953 to current year. October 1953 to September 1976 published in hydrograph form and on file at district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 28.80 ft below land-surface datum, June 2, 1984; lowest, 86.85 ft below land-surface datum, Sept. 20, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 1200

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.20	30.89	30.88	30.76	30.93	30.92	30.80	30.88	31.01	31.35	31.60	31.71
2	31.18	31.01	31.11	30.67	30.93	30.81	30.83	30.94	31.08	31.37	31.62	31.68
3	31.11	31.02	31.07	30.75	30.86	30.87	30.83	30.98	31.09	31.40	31.65	31.69
4	31.06	31.00	30.97	30.64	30.82	30.87	30.86	30.90	31.07	31.40	31.64	31.67
5	31.10	30.99	30.89	30.78	30.88	30.86	30.88	30.80	31.06	31.42	31.61	31.72
6	31.10	30.99	31.00	30.74	30.77	30.89	30.85	30.82	31.05	31.44	31.61	31.76
7	31.10	30.99	30.89	30.87	30.94	30.98	30.85	30.84	31.03	31.45	31.61	31.79
8	31.12	31.04	30.90	30.86	31.03	30.92	30.81	30.88	31.08	31.45	31.63	31.79
9	31.14	30.97	31.00	30.80	31.02	30.83	30.89	30.93	31.11	31.43	31.66	31.77
10	31.10	30.95	30.97	30.70	30.95	30.71	30.82	30.93	31.11	31.47	31.63	31.75
11	31.10	31.01	30.85	30.69	30.97	30.89	30.78	30.93	31.08	31.48	31.68	31.70
12	31.09	30.97	30.89	30.65	31.00	30.79	30.80	30.91	31.10	31.48	31.71	---
13	31.10	30.94	30.85	30.75	30.98	30.79	30.83	30.93	31.17	31.53	31.68	---
14	31.08	30.94	30.91	30.68	30.82	30.80	30.79	30.97	31.16	31.50	31.64	---
15	31.14	30.96	30.84	30.77	30.93	30.86	30.82	30.97	31.13	31.51	31.64	---
16	31.22	30.90	30.79	30.77	30.80	30.92	30.83	31.03	31.16	31.52	31.65	---
17	31.23	30.94	30.77	30.74	30.78	30.92	30.85	31.00	31.21	31.50	31.66	---
18	31.22	30.90	30.87	30.67	30.77	30.78	30.86	31.00	31.21	31.51	31.70	---
19	31.20	30.88	30.80	30.66	30.77	30.82	30.86	31.04	31.18	31.49	31.71	---
20	31.15	31.00	30.77	30.74	30.81	30.95	30.68	31.07	31.22	31.47	31.72	---
21	31.14	30.95	30.76	30.71	30.91	30.98	30.74	31.05	31.22	31.53	31.75	---
22	31.14	30.87	30.64	30.89	30.86	30.93	30.86	31.01	31.23	31.56	31.74	---
23	31.09	30.90	30.63	30.87	30.94	30.86	30.89	30.99	31.24	31.56	31.73	---
24	31.10	30.90	30.73	30.80	30.96	30.93	30.86	31.01	31.28	31.50	31.77	---
25	31.09	30.87	30.83	30.87	30.97	30.86	30.77	31.01	31.30	31.53	31.76	---
26	31.13	30.82	30.65	30.87	30.75	30.84	30.80	30.97	31.31	31.54	31.74	---
27	31.12	30.79	30.74	30.95	30.88	30.89	30.82	30.98	31.28	31.56	31.76	---
28	31.12	30.81	30.78	30.87	30.96	30.86	30.75	31.01	31.30	31.54	31.81	---
29	31.07	30.91	30.78	30.94	---	30.81	30.89	31.02	31.32	31.60	31.81	---
30	31.02	30.97	30.71	31.03	---	30.80	30.84	31.03	31.32	31.60	31.76	---
31	30.95	---	30.70	30.97	---	30.81	---	31.03	---	31.55	31.74	---
MAX	31.23	31.04	31.11	31.03	31.03	30.98	30.89	31.07	31.32	31.60	31.81	---
MIN	30.95	30.79	30.63	30.64	30.75	30.71	30.68	30.80	31.01	31.35	31.60	---

WTR YR 1986 HIGH 30.63 LOW 31.81

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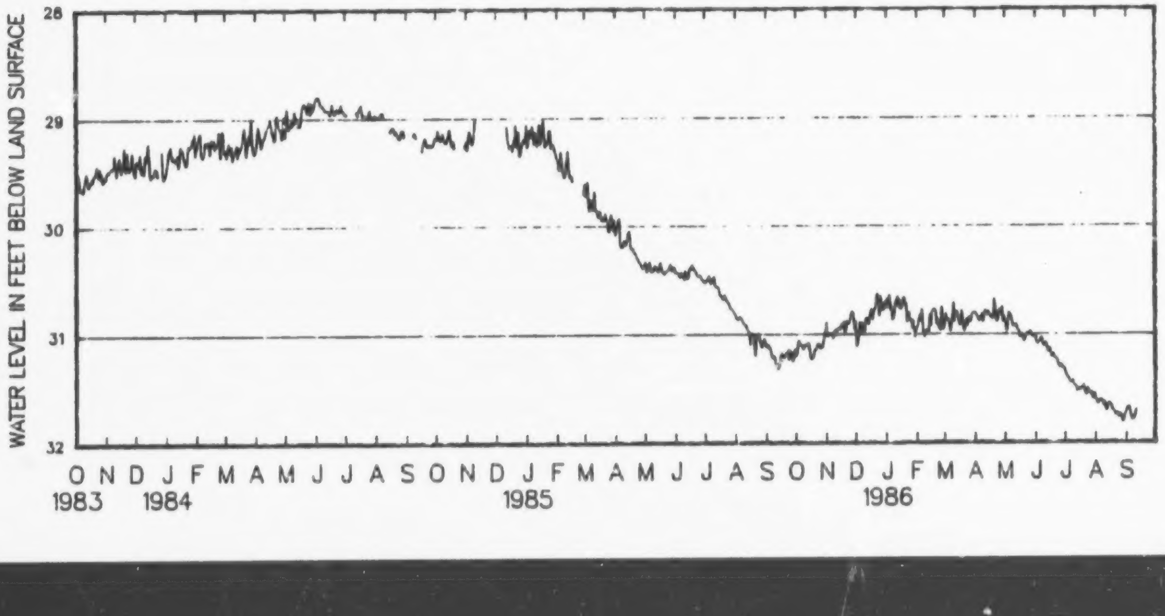


JEFFERSON COUNTY

381453085474501. Local number 47-14-10, (east well), map number 82.

LOCATION.--Lat 38°14'53", long 85°47'45", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 150 ft east of Kroger store, 10 ft south of parking lot curb, on fence line, 900 ft southeast of the junction of West Broadway and 28th Street, in Louisville. Owner: Kroger Corporation.

AQUIFER.--Louisville Limestone of Middle Silurian age. Aquifer code: 354LVLG.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in, depth 204 ft, cased to 65 ft, open hole 65-204 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 452.89 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--January 1944 to current year. January 1944 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.27 ft below land-surface datum, Oct. 30, 1985; lowest measured, 76.66 ft below land-surface datum, June 15, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	26.27	Apr. 22, 1986	26.58

381500085454701. Local number 78-5, map number 84.

LOCATION.--Lat 38°15'00", long 85°45'47", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 1 ft south of concrete walkway curb, 50 ft northwest of northwest corner of Bell Telephone Company office building, 50 ft east of South Seventh Street, 200 ft north of West Chestnut Street, in Louisville. Owner: South Central Bell Telephone Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 87 ft, screened 85-87 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 459.11 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.44 ft below land-surface datum, Apr. 24, 1984; lowest measured, 39.39 ft below land-suface datum, Oct. 24, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	35.88	Apr. 21, 1986	36.34

381501085464601. Local number CP 10, map number 85.

LOCATION.--Lat 38°15'01", long 85°46'46", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the center of the west side of Sheppard Park, 10 ft south of a concrete walkway, 17 ft east of South 17th Street, 150 ft north of the junction of Magazine and South 17th Street, in Louisville. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 59.0 ft, screened 56.0-59.0 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 460.73 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--August 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.65 ft below land-surface datum, Oct 31, 1984; lowest measured, 45.14 ft below land-surface datum, Aug. 4, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	35.38	Apr. 22, 1986	35.90

JEFFERSON COUNTY

381503085453301. Local number 45-15-36, map number 86.
LOCATION.--Lat 38°15'03", long 85°45'33", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, in subbasement of Kentucky Towers Apartments, on east side of South Fifth Street, at Fifth and Walnut Streets, in Louisville. Owner: Kentucky Towers (formerly Kentucky Hotel).
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in, depth 104 ft, screened 84-104 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 460.00 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter 22.81 ft below land-surface datum.
PERIOD OF RECORD.--September 1948 to current year. November 1973 to September 1976 published in hydrograph form and on file at district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.53 ft below land-surface datum, Apr. 24, 1984; lowest measured, 87.74 ft below land-surface datum, Sept. 23, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 28, 1985	36.42	Apr. 21, 1986	35.54

381503085452601. Local number 5, map number 87.
LOCATION.--Lat 38°15'03", long 85°45'26", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, in basement under truck loading dock at Stewart's Dry Goods Company, 501 Fourth Avenue in Louisville. Owner: Stewart's Dry Goods Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 20 in, depth 124 ft, cased to 103 ft, screened 103-124 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 461.54 ft above National Geodetic Vertical Datum. Measuring point: Bottom edge of a slanted 2 in access pipe in concrete pump base, 12.00 ft below land-surface datum.
REMARKS.--Water-quality samples collected Aug. 8, 1978 to Aug. 21, 1980.
PERIOD OF RECORD.--March 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.83 ft below land-surface datum, Apr. 24, 1984; lowest measured, 37.84 ft below land-surface datum, Oct. 28, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 28, 1985	37.84	Apr. 21, 1986	36.91

381504085443202. Local number CP 7A, map number 88.
LOCATION.--Lat 38°15'04", long 85°44'32", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at the southwest corner of east Louisville Park, 13.7 ft west of a tennis court fence, 16.5 ft east of curb on south Hancock Street, 58.2 ft north of curb on east Liberty Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 84.6 ft, screened 71.1-74.1 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 467.19 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
REMARKS.--Replaces destroyed well 381504085443201 (CP 7), which was 10 ft north.
PERIOD OF RECORD.--July 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.42 ft below land-surface datum, Apr. 24, 1984; lowest measured, 45.84 ft below land-surface datum, Oct. 29, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	45.84	Apr. 22, 1986	45.12

JEFFERSON COUNTY

381505085475701. Local number CP 5, map number 89.
LOCATION.--Lat 38°15'05", long 85°47'57", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the southwest corner of Elliott Square Park, 35 ft east of South 29th Street, 100 ft north of Elliott Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 81.5 ft, screened 65.0-68.0, 79.5-81.5 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 452.86 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--July 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.91 ft below land-surface datum, Apr. 24, 1985; lowest measured, 39.93 ft below land-surface datum, July 5, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	30.30	Apr. 22, 1986	30.98

381508085455701. Local number CP 4, map number 90.
LOCATION.--Lat 38°15'08", long 85°45'57", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the southwest corner of Beecher Park, 15 ft west of the South 9th Street sidewalk, 20 ft north of the Walnut Street sidewalk, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 109.8 ft, screened 106.8-109.8 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 459.47 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--July 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.43 ft below land-surface datum, Apr. 24, 1984; lowest measured, 43.31 ft below land-surface datum, Aug. 4, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	35.68	Apr. 21, 1986	35.29

JEFFERSON COUNTY

381514085453502. Local number CP 11A, map number 91.

LOCATION.--Lat 38°15'14", long 85°45'35", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the northwest corner of Jefferson Square Park at Sixth and Jefferson Streets, 52 ft south of the Jefferson Street curb, 16.5 ft west of driveway retaining wall, 2 ft east of sidewalk, across the street from the Jefferson County Courthouse, in Louisville. Owner: Jefferson County.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 108.0 ft, screened 106.0-108.0 ft.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Altitude of land-surface datum is 461.52 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 3.10 ft above land-surface datum.

REMARKS.--Recorder shelter has two plexi-glass panels for public exhibit of water level recording equipment.

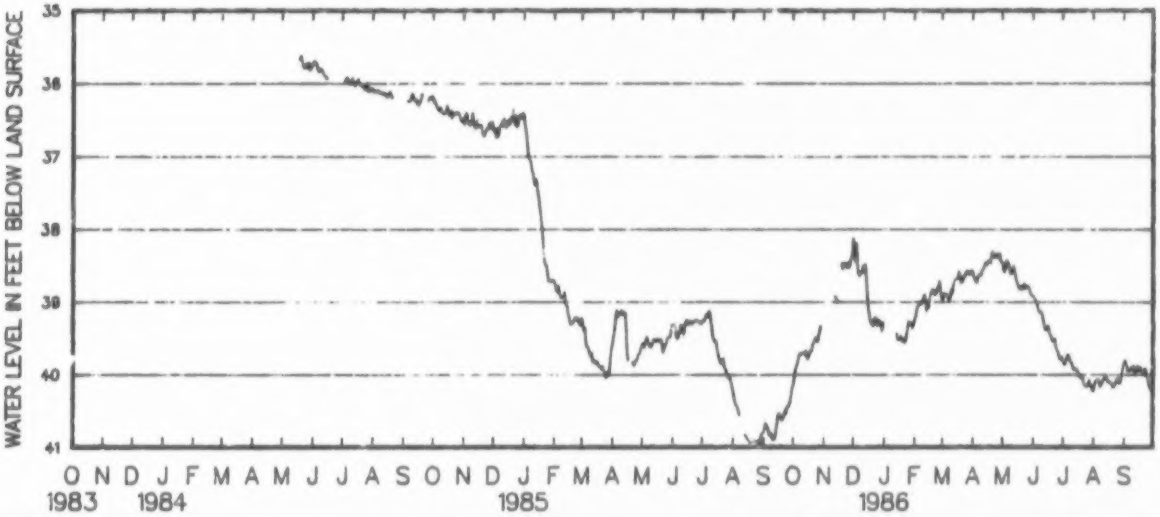
PERIOD OF RECORD.--May 1984 to current year. Replaced destroyed well 381514085453501 (CP 11), which was 25 ft west.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.62 ft below land-surface datum, May 20, 1984; lowest measured, 40.95 ft below land-surface datum, Aug. 19, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 1200

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40.16	---	38.12	---	39.24	38.98	38.60	38.46	38.92	39.81	40.23	39.83
2	40.08	---	38.31	---	39.20	38.93	38.66	38.57	38.95	39.84	40.16	39.79
3	39.97	---	38.45	---	39.11	38.88	38.68	38.60	38.97	39.87	40.11	39.83
4	39.90	---	38.19	---	39.06	38.91	38.73	38.52	38.99	39.81	40.07	39.88
5	39.86	---	38.50	---	39.05	38.90	38.74	38.42	39.02	39.75	40.07	39.96
6	39.80	---	38.61	---	39.00	38.89	38.65	38.44	39.10	39.72	40.06	39.95
7	39.72	---	38.65	---	39.04	38.95	38.63	38.48	39.14	39.73	40.08	39.96
8	39.70	---	38.60	---	39.02	38.99	38.61	38.53	39.15	39.80	40.17	39.89
9	39.72	---	38.59	---	38.98	38.93	38.64	38.61	39.13	39.82	40.13	39.94
10	39.70	---	38.60	---	38.91	38.82	38.58	38.62	39.18	39.85	---	39.92
11	39.69	---	38.49	---	38.89	38.89	38.55	38.58	39.25	39.89	---	39.87
12	39.70	38.92	38.51	---	38.98	38.76	38.53	38.50	39.30	39.93	40.05	39.95
13	39.71	38.92	38.48	---	39.14	38.70	38.50	38.58	39.38	39.94	40.03	40.01
14	39.66	38.96	38.67	39.43	38.99	38.68	38.44	38.63	39.38	39.91	40.02	39.95
15	39.75	38.99	38.88	39.52	39.09	38.68	38.49	38.71	39.37	39.93	40.05	39.87
16	39.79	---	39.06	39.52	38.96	38.68	38.45	38.75	39.32	39.95	40.10	39.94
17	39.72	---	39.16	39.52	38.89	38.66	38.43	38.79	39.41	39.98	40.09	39.90
18	39.70	---	39.26	39.46	38.86	38.57	38.44	38.82	39.45	40.02	40.11	39.89
19	39.65	38.46	39.31	39.51	38.82	38.65	38.46	38.78	39.46	40.05	40.12	39.97
20	39.67	38.55	39.29	39.55	38.83	38.74	38.31	38.83	39.52	40.01	40.12	39.96
21	39.58	38.49	39.34	39.50	38.90	38.73	38.30	38.82	39.54	40.02	40.18	40.01
22	39.56	38.46	39.21	39.56	38.90	38.70	38.38	38.77	39.51	40.11	40.17	39.91
23	39.50	38.50	39.21	39.52	38.89	38.62	38.40	38.74	39.51	40.14	40.13	39.92
24	39.48	38.53	39.21	39.43	38.78	38.65	38.38	38.82	39.63	40.15	40.11	39.98
25	39.50	38.48	39.33	39.35	38.83	38.60	38.32	38.78	39.66	40.17	40.04	40.06
26	39.55	38.45	39.26	39.26	38.70	38.56	38.39	38.78	39.68	40.17	40.06	40.12
27	39.46	38.53	39.25	39.31	38.81	38.58	38.27	38.79	39.74	40.13	40.12	40.17
28	39.39	38.41	39.27	39.30	38.92	38.61	38.33	38.82	39.79	40.07	40.12	40.21
29	39.33	38.40	39.33	39.28	---	38.62	38.45	38.88	39.78	40.15	40.07	40.16
30	---	38.32	39.40	39.36	---	38.58	38.45	38.91	39.75	40.15	40.01	40.22
31	---	---	39.28	39.30	---	38.56	---	38.92	---	40.22	39.91	---
MAX	---	---	39.40	---	39.24	38.99	38.74	38.92	39.79	40.22	---	40.22
MIN	---	---	38.12	---	38.70	38.56	38.30	38.42	38.92	39.72	---	39.79

WTR YR 1986 HIGH 38.12 LOW 40.22



381536085492801. Local number CP 2, map number 92.
LOCATION.--Lat 38°15'36", long 85°49'28", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the northeast corner of Shawnee Park, 50 ft south of Northwestern Parkway, 200 ft west of Southwestern Parkway, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 90.6 ft, screened 53.1-56.1, 87.6-90.6 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 455.05 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--June 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.75 ft below land-surface datum, Apr. 15, 1980; lowest measured, 48.84 ft below land-surface datum, Sept. 22, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	44.87	Apr. 22, 1986	43.66

381538085434401. Local number 78-7, map number 93.
LOCATION.--Lat 38°15'38", long 85°43'44", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, on the north side of Adams Street, near the center of a long curve from south to northwest, 5 ft north of curb on north side of Adams Street, 9 ft west of a power line brace pole, 150 ft south of I-64, 400 ft north of Koch Beef Company building, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 77 ft, screened 75-77 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.-Altitude of land-surface datum is 435.75 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--July 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.75 ft below land-surface datum, Dec. 15, 1978; lowest measured, 17.54 ft below land-surface datum, Oct. 30, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	17.49	Apr. 22, 1986	16.28

381539085465201. Local number CP 9, map number 94.
LOCATION.--Lat 38°15'39", long 85°46'52", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the southeast corner of Boone Square Park, 20 ft north of Rowan Street, 150 ft west of South 19th Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 42.7 ft, screened 39.7-42.7 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 456.99 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--July 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.38 ft below land-surface datum, Apr. 24, 1985; lowest measured, 40.51 ft below land-surface datum, July 12, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	32.16	Apr. 22, 1986	32.68

JEFFERSON COUNTY

381540085443701. Local number 44-15-6, map number 95.

LOCATION.--Lat 38°15'40", long 85°43'70", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, on south bank of Ohio River at east side of the machine shop, at the former Ohio River Sand Company Plant, North First Street and River Road, in Louisville. Owner: Martin Marietta Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in, depth 130 ft, cased and screened.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 440.13 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 0.70 ft above land-surface datum.

REMARKS.--Water level affected by pumping from nearby well. Water samples collected Apr. 11, 1944 and Aug. 22, 1944.

PERIOD OF RECORD.--November 1945 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.11 ft below land-surface datum, Apr. 24, 1984; lowest measured, 40.93 ft below land-surface datum, Dec. 22, 1959.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	19.40	Apr. 22, 1986	18.99

381543085480101. Local number CP 14, map number 96.

LOCATION.--Lat 38°15'43", long 85°48'01", Hydroloic Unit 05140101, County Code 111, New Albany quadrangle, at the southwest corner of Westonia Park, South 30th Street at an unnamed alley south of Rowan Street, 5 ft north of curb on north side of alley, 8 ft east of a telephone pole at the curb on east side of South 30th Street, in Louisville. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diamoter 1.5 in, depth 45 ft, screened 43-45 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 455.71 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--July 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.35 ft below land-surface datum, Aug. 25, 1980; lowest measured, 36.13 ft below land-surface datum, Dec. 13, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	33.08	Apr. 22, 1986	33.87

381553085431602. Local number M-2, map number 97.

LOCATION.--Lat 38°15'53", long 85°43'16", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 15 ft west of the northwest corner of Metropolitan Sewer District, Beargrass Creek Pump Station Building, 100 ft west of end of Letterle Avenue, 150 ft south of I-71, in Louisville. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 98 ft, screened 96-98 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 446.77 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--December 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.93 ft below land-surface datum, Dec. 15, 1978; lowest measured, 28.28 ft below land-surface datum, Nov. 20, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	28.11	Apr. 22, 1986	27.21

JEFFERSON COUNTY

381604085430501. Local number 43-16-8 (WC-1), map number 98.
LOCATION.--Lat 38°16'04", long 85°43'05", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 100 ft northeast of junction of River Road and entrance road to Bandman Park, 0.2 mi east of Beargrass Creek, in Louisville. Owner: Louisville Water Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in, depth 101 ft, screened 99-101 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 438.88 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 4.61 ft above land-surface datum.
REMARKS.--Water levels affected by Ohio River. Water-quality samples collected Apr. 2, 1944 and July 10, 1979.
PERIOD OF RECORD.--May 1946 to current year. May 1946 to September 1976 published in hydrograph form and on file at district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 0.09 ft below land-surface datum, Sept. 14, 1979; lowest measured, 27.90 ft below land-surface datum, Feb. 10, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	19.54	Apr. 22, 1986	18.85

381607085483601. Local number CP 3, map number 99.
LOCATION.--Lat 38°16'07", long 85°48'36", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the northwest corner of Taylor Park, 150 ft east of North 38th Street, 200 ft north of Jewell Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 55.7 ft, screened 52.7-55.7 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 445.33 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--June 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.00 ft below land-surface datum, May 19, 1980; lowest measured, 46.67 ft below land-surface datum, June 29, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 30, 1985	32.55	Apr. 22, 1986	31.70

381613085421901. Local number 42-16-18, (WC-14), map number 100.
LOCATION.--Lat 38°16'13", long 85°42'19", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at the southwest corner of the River Road Country Club golf course, 0.1 mi south of WKYW Radio Tower, 0.6 mi southwest of junction of River Road and Zorn Avenue, in Louisville. Owner: Louisville Water Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 86 ft, screened 84-86 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 434.59 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 0.83 ft above land-surface datum.
REMARKS.--Water-quality sample collected Jan. 8, 1946.
PERIOD OF RECORD.--June 1946 to current year. June 1946 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.58 ft below land-surface datum, May 5, 1972; lowest measured, 20.63 ft below land-surface datum, Feb. 3, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	12.74	Apr. 22, 1986	12.71

GROUND-WATER LEVELS

JEFFERSON COUNTY

381628085473101. Local number CP 13, map number 101.

LOCATION.--Lat 38°16'28", long 85°47'31", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the northwest corner of Portland Park, 28th Street and Northwestern Parkway, 12 ft south of chain link fence, 24 ft south of curb on south side of Northwestern Parkway, 31 ft east of curb on east side of 28th Street, in Louisville. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 46 ft, screened 44-46 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 458.68 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--December 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.34 ft below land-surface datum, May 1, 1979; lowest measured, 42.32 ft below land-surface datum, Jan. 21, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 31, 1985	41.39	Apr. 22, 1986	41.70

GROUND-WATER LEVELS

JEFFERSON COUNTY

381638085415801. Local number 41-16-3, (WC-4), map number 102.
LOCATION.--Lat 38°16'38", long 85°41'58", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at the northwest corner of River Road and Zorn Avenue, in Louisville. Owner: Louisville Water Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 104 ft, screened 98-100 ft.
INSTRUMENTATION.--ADR recorder--60-minute punch.
DATUM.--Altitude of land-surface datum is 435.79 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 4.41 ft above land-surface datum.
REMARKS.--Water levels affected by Ohio River, which causes level to rise above land surface. Water-quality sample collected July 10, 1979.
PERIOD OF RECORD.--April 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.25 ft above land-surface datum, May 19, 1984; lowest measured, 19.61 ft below land-surface datum, Feb. 13, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 1200

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.91	16.87	11.99	15.91	16.33	13.70	15.07	16.06	16.25	16.38	16.65	16.68
2	16.94	16.88	11.13	15.94	16.38	13.93	15.15	16.06	16.43	16.34	16.66	16.68
3	16.96	16.84	10.35	16.04	16.35	14.21	15.24	16.08	16.46	16.32	16.63	16.70
4	16.93	16.78	10.00	16.03	16.25	14.45	15.34	16.09	16.35	16.34	16.68	16.66
5	16.96	16.80	10.22	16.05	16.07	14.65	15.46	16.09	16.44	16.21	16.67	16.71
6	16.93	16.75	10.85	16.02	15.28	14.84	15.47	16.11	16.48	16.27	16.65	16.69
7	16.91	16.64	11.44	16.14	14.42	14.98	15.55	16.11	16.33	16.28	16.72	16.73
8	16.96	16.04	12.24	16.22	13.57	14.99	15.58	16.12	16.21	16.44	16.71	16.64
9	17.02	15.38	12.91	16.23	12.77	15.07	15.65	16.12	16.20	16.52	16.81	16.58
10	17.07	14.92	13.38	16.26	12.10	15.15	15.66	16.12	16.25	16.51	16.81	16.65
11	17.04	14.77	13.71	16.27	11.66	15.25	15.73	16.19	16.34	16.41	16.81	16.58
12	17.02	15.05	13.96	16.30	11.63	15.26	15.74	16.19	16.25	16.38	16.78	16.57
13	17.05	15.32	14.08	16.34	12.00	15.11	15.74	16.21	16.23	16.30	16.78	16.69
14	17.02	15.34	14.26	16.29	12.57	14.20	15.83	16.22	16.21	16.31	16.78	16.69
15	17.01	15.35	13.94	16.34	13.31	13.69	15.85	16.23	16.23	16.31	16.79	16.69
16	16.96	15.13	13.32	16.37	13.60	13.43	15.89	16.27	16.24	16.28	16.79	16.64
17	16.96	14.38	13.01	16.41	13.91	13.18	15.94	16.31	16.37	16.37	16.79	16.62
18	16.96	14.10	13.03	16.44	14.04	12.81	15.95	16.32	16.46	16.45	16.79	16.67
19	16.97	13.89	13.63	16.46	14.05	12.42	15.95	16.32	16.29	16.38	16.79	16.71
20	16.93	13.65	14.03	16.39	13.30	12.19	15.90	16.35	16.32	16.50	[illegible]	16.68
21	16.88	13.46	14.35	16.31	12.69	12.20	15.90	16.36	16.44	16.45	16.68	16.69
22	16.93	13.71	14.67	16.34	12.27	12.44	15.94	16.39	16.37	16.38	16.66	16.68
23	16.89	14.46	14.88	16.25	12.05	13.08	15.94	16.27	16.25	16.40	16.56	16.64
24	16.91	14.80	15.10	16.13	11.94	13.54	15.94	16.26	16.42	16.36	16.57	16.61
25	16.89	15.00	15.29	16.02	12.05	13.81	15.94	16.35	16.39	16.45	16.59	[illegible]
26	16.86	15.12	15.36	15.97	12.14	14.04	15.94	16.35	16.35	16.53	16.58	16.57
27	16.88	15.22	15.45	15.99	12.69	14.32	15.95	16.38	16.41	16.57	16.67	16.59
28	16.84	14.77	15.61	16.02	13.34	14.49	15.96	16.35	16.47	16.58	16.65	16.52
29	16.86	13.79	15.67	16.08	---	14.66	16.05	16.31	16.39	16.62	16.68	16.50
30	16.87	12.96	15.77	16.23	---	14.78	16.06	16.29	16.33	16.48	16.69	16.51
31	16.85	---	15.84	16.26	---	14.94	---	16.38	---	16.62	16.65	---
MAX	17.07	16.88	15.84	16.46	16.38	15.26	16.06	16.39	16.48	16.62	16.81	16.73
MIN	16.84	12.96	10.00	15.91	11.63	12.19	15.07	16.06	16.20	16.21	16.56	16.50

WTR YR 1986 HIGH 10.00 LOW 17.07

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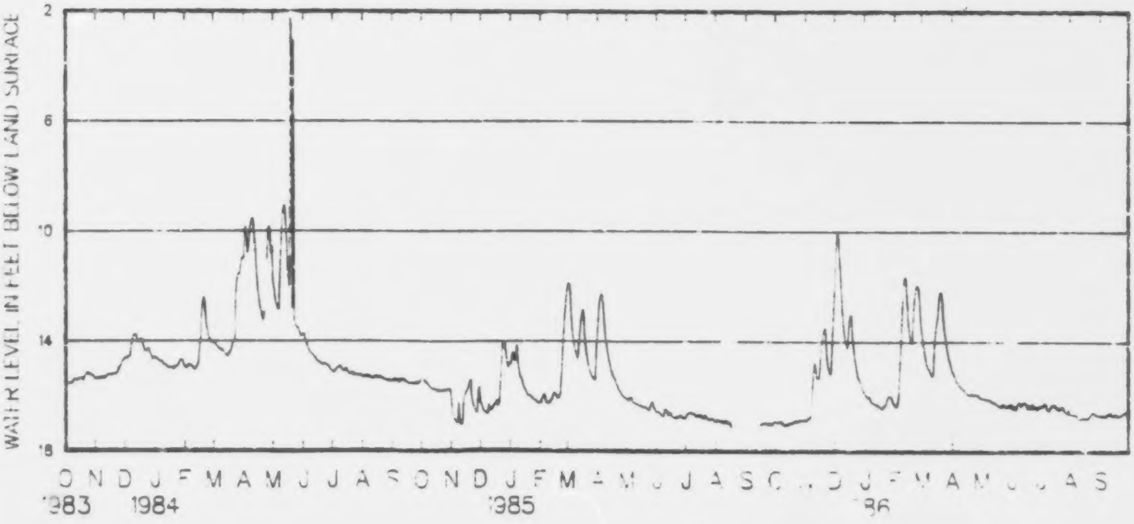

JEFFERSON COUNTY

381648085421201. Local number 42-16-15, (WC-5), map number 103.

LOCATION.--Lat 38°16'48", long 85°42'12", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 200 ft west of Louisville Water Company pump house, 200 ft south of the Ohio River, 0.2 mi northwest of junction of River Road and Zorn Avenue, in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in, depth 98 ft, screened 96-98 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 435.11 ft above National Geodetic Vertical Datum. Measuring point: Top of pipe flange, 11.11 ft above land-surface datum.

REMARKS.--Water levels affected by Ohio River, which causes level to rise above land surface. Water quality collected Apr. 30, 1948.

PERIOD OF RECORD.--May 1946 to current year. May 1946 to April 1977 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.04 ft above land-surface datum, Jan. 17, 1950; lowest measured, 18.31 ft below land-surface datum, Nov. 6, 1946.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	16.31	Apr. 22, 1986	15.66

381653085413302. Local number (WC-9A), map number 104.

LOCATION.--Lat 38°16'53", long 85°41'33", Hydrograph Unit 05140101, County Code 111, Jeffersonville quadrangle, 45 ft east of River Road at Wagner Lane, opposite the southwest corner of Cox Park, in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.5 in, depth 90 ft, screened 76-78 ft, 88-90 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 437.65 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--December 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.68 ft below land-surface datum, Apr. 24, 1984; lowest measured, 19.04 ft below land-surface datum, July 21, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	18.68	Apr. 22, 1986	18.19

381701085414002. Local number (WC-8A), map number 105.

LOCATION.--Lat 38°17'01", long 85°41'40", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, on the south bank of the Ohio River at the northwest corner of Cox Park, in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.5 in, depth 96 ft, screened 92-96 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 432.58 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Replaces well 381702085414001 (WC-8) which was 100 ft north. Water levels affected by Ohio River.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.38 ft below land-surface datum, Mar. 21, 1982; lowest measured, 14.35 ft below land-surface datum, Oct. 18, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	13.51	Apr. 22, 1986	13.21

JEFFERSON COUNTY

381722085405801. Local number 40-17-3, (WC-11), map number 106.

LOCATION.--Lat 38°17'22", long 85°40'58", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, near a mulberry tree on south bank of Ohio River, 50 ft north of the intersection of River Road and Indian Hills Trail, in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 103 ft, screened 101-103 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 433.50 ft above National Geodetic Vertical Datum. Measuring point: Top of pipe flange, 3.73 ft above land-surface datum.

REMARKS.--Water levels affected by Ohio River, which causes level to rise above land surface.

PERIOD OF RECORD.--May 1946 to current year. May 1946 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.93 ft above land-surface datum, Dec. 13, 1978; lowest measured, 16.46 ft, below land-surface datum, Feb. 3, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	13.42	Apr. 22, 1986	13.22

381742085402001. Local number 40-17-5, (WC-13), map number 107.

LOCATION.--Lat 38°17'42", long 85°40'20", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 30 ft east of River Road, 300 ft northeast of junction of River Road and Blankenbaker Lane, in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 106 ft, screened 104-106 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 438.87 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 3.07 ft above land-surface datum.

PERIOD OF RECORD.--June 1946 to current year. June 1946 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.28 ft below land-surface datum, Jan. 18, 1950; lowest measured, 19.75 ft below land-surface datum, Jan. 29, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	18.77	Apr. 22, 1986	18.59

381827085392401. Local number 39-18-1, (WC-26), map number 108.

LOCATION.--Lat 38°18'27", long 85°39'24", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 20 ft east of River Road, opposite River Valley Club in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 130 ft, screened 128-130 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 455.94 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 4.68 ft above land-surface datum.

PERIOD OF RECORD.--July 1946 to current year. July 1946 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.93 ft below land-surface datum, Jan. 18, 1950; lowest measured, 38.53 ft below land-surface datum, Feb. 3, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	34.40	Apr. 22, 1986	34.15

JEFFERSON COUNTY

381904085384801. Local number 38-19-2, (WC-27), map number 109.

LOCATION.--Lat 38°19'04", long 85°38'48", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 30 ft west of River Road, 250 ft north of north end of bridge over Goose Creek, in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 96 ft, screened 94-96 ft.

INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.

DATUM.--Altitude of land-surface datum is 438.46 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 2.29 ft above land-surface datum.

PERIOD OF RECORD.--August 1946 to current year. August 1946 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.84 ft below land-surface datum, Jan. 14, 1950; lowest measured, 20.97 ft below land-surface datum, Feb. 3, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Water level	Date	Water level
Oct. 29, 1985	18.32	Apr. 22, 1986	17.87

DISCONTINUED GAGING-STATION RECORDS

STATION NUMBER	STATION NAME AND LOCATION	DRAINAGE AREA	LATITUDE	LONGITUDE	SW BEGIN YEAR	SW END YEAR	PEAK STAGE	COMPLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
03207845	CARD CR AT MOUTHCARD, KY	4.18	372254	0821530	1973	1974		E			
03207875	FEDS CR AT FEDS CR, KY	11.60	372407	0821438	1973	1974		E			
03207905	BIG CR AT DUNLAP, KY	9.55	372543	0821452	1974	1976		E			
03207915	ELKFOOT BRANCH NR NIGH, KY	0.70	372352	0821703	1980	1984		E			
03207925	ISLAND CR NR PHYLLIS, KY	2.42	372523	0821817	1974	1974		E			
03207935	LICK CR AT LICK CR, KY	6.70	372344	0821808	1973	1976		E			
03207940	MILLERS CR NR PHYLLIS, KY	1.68	372519	0821953	1973	1975		E			
03207962	DICKS FK AT PHYLLIS, KY	0.82	372657	0822016	1975	1984		E			
03207965	GRAPEVINE CR NR PHYLLIS, KY	6.20	372557	0822114	1973	1982		E			
03209400	ELKHORN CR NR ELKHORN CITY, KY	48.80	371630	0822245	1967	1972			E	E	
03209440	SHELBY CR AT DORTON, KY	12.60	371638	0823444	1971	1976*	E	E	E	E	
03209460	SHELBY CR AT SHELBIANA, KY	112.00	372524	0822957	1965	1965				E	
					1972	1981					
03209545	MUD CR AT HAROLD, KY	51.90	373213	0823840	1975	1981				E	
03209600	RIGHT FK BEAVER CR AT WAYLAND, KY	73.90	372635	0824828	1959	1975				E	
03209700	BEAVER CR AT MARTIN, KY	228.00	373410	0824528	1953	1972				E	
03209800	LEVISA FK AT PRESTONSBURG, KY	1702.00	374015	0824638	1964	1981		E			
03209890	MIDDLE CR NR PRESTONSBURG, KY	62.10	373917	0824749	1975	1981				E	
03210040	RACCOON CR NR ZEBULON, KY	14.80	373055	0822705	1975	1976		E			
03210160	CANEY FK NR GULNARE, KY	3.74	373511	0823223	1975	1976*		E	E		
03210310	BRUSHY FK AT HEENON, KY	20.40	373958	0822903	1974	1976		E			
03210420	BUFFALO CR NR ENDICOTT, KY	6.21	373758	0823618	1974	1974		E			
03210500	JOHNS CR NR PRESTONSBURG KY	197.00	374155	0824330	1938	1940		E			
03211945	OPEN FK PAINT CR NR RELIEF, KY	25.50	375531	0825944	1975	1981				E	
03213577	KERSHAW BR NR HURLEY, VA	.60	372701	0820040	1981	1982		E			
03213594	CAMP CR NR ARGO, KY	1.60	372829	0820516	1981	1982		E			
03213600	KNOX CR AT ARGO, KY	95.90	372901	0820306	1958	1972				E	
03213630	R FK HURRICANE CR NR STOPOVER, KY	0.82	372946	0820522	1980	1983		E			
03213790	BIG CR NR HATFIELD, KY	59.10	374421	0822025	1975	1981				E	
03214400	WOLF CR AT PILGRIM, KY	62.80	374749	0822544	1975	1981				E	
03214730	ROCKCASTLE CR AT CLIFFORD, KY	121.00	380007	0823112	1965	1965					E
					1972	1981					
03214980	BIG SANDY R AUXILIARY AT LOUISA, KY	3885.00	380713	0823638	1938	1976		E			
03215000	BIG SANDY R AT LOUISA, KY	3897.00	381016	0823805	1939	1977		E			C
03215362	BLAINE CR ABOVE CAINS CR NR BLAINE, KY	64.70	380123	0825207	1975	1981				E	
03215410	BLAINE CR NR BLAINE, KY	119.00	380400	0824938	1972	1976				E	
03215500	BLAINE CR AT YATESVILLE, KY	217.00	380840	0824105	1915	1975*	E	E	E	E	
03216000	OHIO R AT ASHLAND, KY	60750.00	382852	0823812	1939	1975		E			
03216190	LITTLE SANDY R AT SANDY HOOK, KY	35.70	380650	0830702	1970	1974				E	
03216200	LITTLE SANDY R NR SANDY HOOK KY	60.40	380708	0830619	1954	1969				E	
03216400	LITTLE SANDY R AT LEON, KY	255.00	381711	0825839	1962	1980		E			
03216438	LITTLE FK LITTLE SANDY R NR WILLARD, KY	58.10	381208	0825531	1975	1981				E	
03216480	LITTLE FK LITTLE SANDY R NR GRAYSON, KY	132.00	381815	0825623	1965	1965					E
					1972	1981					
03216550	E FK LITTLE SANDY R NR CANNNONSBURG, KY	38.20	381922	0824308	1980	1981		E		E	
03216570	E FK LITTLE SANDY R NR ARGILLITE, KY	138.00	382844	0824546	1968	1976				E	
03216935	TYGARTS CR NR KEHOE, KY	124.00	382606	0830204	1963	1974		E			E
03216965	BUFFALO CR BELOW GRASSY CR AT KEHOE, KY	54.60	382722	0830347	1975	1981				E	
03237225	KINNICONICK CR NR KINNICONICK, KY	60.10	382917	0832213	1975	1981				E	
03237230	KINNICONICK CR NR RUGLESS, KY	109.00	382901	0831655	1954	1972				E	
03237246	LAUREL FK NR CAMP DIX, KY	57.00	382808	0831542	1975	1981				E	
03237285	SALT LICK CR NR VANCEBURG, KY	47.50	383526	0832056	1954	1962					
03237985	CABIN CR NR PLUMVILLE, KY	57.60	383632	0833750	1975	1978				E	
					1980	1981					
03238000	OHIO R AT MAYSVILLE, KY	70130.00	383855	0834549	1939	1980		E	E		
03238620	BRACKEN CR NR AUGUSTA, KY	28.80	384505	0835805	1975	1978				E	
					1980	1981					
03238660	LOCUST CR NR AUGUSTA, KY	41.70	384449	0840612	1975	1978				E	
					1980	1981					
03238750	TWELVEMILE CR NR CALIFORNIA, KY	44.30	385738	0841926	1975	1981				E	
03238795	DUCK CR AT COLD SPRING, KY	.49	390158	0842543	1975	1978			E		
03248170	LICKING R AT FREDVILLE, KY	40.30	373613	0825817	1973	1976				E	
03248250	LICKING R AT ROYALTON, KY	76.70	374021	0830122	1973	1976				E	
03248685	ELK FK NR LENOX, KY	59.40	375652	0831257	1958	1973				E	
03248730	CANEY CR NR W LIBERTY, KY	41.40	375600	0831836	1973	1975				E	
03248765	GRASSY CR NR W LIBERTY, KY	46.10	375413	0832111	1974	1979				E	
					1981						
03248815	BLACKWATER CR NR EZEL, KY	38.30	375530	0832459	1974	1981					
03248855	N FK LICKING R NR WRIGLEY, KY	33.70	380239	0831813	1974	1981				E	
03249000	LICKING R AT YALE, KY	714.00	380255	0832930	1937	1942		E			
03250000	TRIPLETT CR AT MOREHEAD, KY	47.50	381104	0832548	1941	1980		E			
03250185	SLATE CR NR JEFFERSNVILLE, KY	56.70	375950	0835016	1973	1981				E	
03250240	SLATE CR NR OWINGSVILLE, KY	185.00	380829	0834343	1954	1972				E	
03250320	ROCK LICK CR NR SHARKEY, KY	4.01	381506	0833504	1973	1982		E			
03250330	FOX CR NR HILLSBORO, KY	110.00	381517	0833911	1953	1972			E	E	
03250470	FLEMING CR NR HILL TOP, KY	77.20	382244	0834942	1954	1972				E	

DISCONTINUED GAGING-STATION RECORDS

STATION NUMBER	STATION NAME AND LOCATION	DRAINAGE AREA	LATI- TUDE	LONGI- TUDE	SW BEGIN YEAR	SW END YEAR	PEAK ST- AGE	COM- PL- ETE ST- AGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
03250500	LICKING R AT BLUE LICK SPRINGS, KY	1785.00	382519	0835957	1938	1959*	E	E	E		
03250640	JOHNSON CR AT PIQUA, KY	72.40	382822	0840256	1973	1974				E	
03251400	N FK LICKING R NR MILFORD, KY	286.00	383500	0840920	1954	1972			E	E	
03251665	STONER CR NR N MIDDLETOWN, KY	51.60	380651	0840817	1974	1981				E	
03251790	STRODES CR NR N MIDDLETOWN, KY	53.60	380635	0841041	1973	1981				E	
03252188	GRASSY LICK CR NR SHARPSBURG, KY	40.60	380857	0835901	1973	1974				E	
03252190	HINKSTON CR NR SHARPSBURG, KY	78.90	381003	0835832	1973	1977				E	
03252300	HINKSTON CR NR CARLISLE, KY	154.00	381433	0840309	1968	1976				E	
03252770	RAVEN CR NR BERRY, KY	46.60	383050	0842417	1973	1981				E	
03252940	FK LICK CR AT MORGAN, KY	50.20	383627	0842431	1973	1981				E	
03254680	BANKLICK CR NR S FT MITCHELL, KY	54.60	390145	0843158	1974	1981				E	
03253000	SF LICKING R AT HAYES, KY	920.00	383930	0842110	1915	1931		E			
03254000	LICKING R AT BUTLER, KY	3385.00	384722	0842105	1938	1942	E		E		C
03254400	N FK GRASSY CR NR PINER, KY	13.60	384731	0843050	1967	1983		E			
03254460	GRASSY CR AT DEMOSSVILLE, KY	119.00	384736	0842548	1950	1972				E	
03254500	LICKING R AT MORNING VIEW, KY	3539.00	384945	0842715	1914	1916		E			
03255000	OHIO R AT CINCINNATI, OH	76580.00	390540	0843038	1936	1976	E	E	E		
03277100	GUNPOWDER CR NR UNION, KY	50.20	385638	0844651	1975	1981				E	
03277210	OHIO R AT MARKLAND D NR WARSAW, KY	83170.00	384631	0845819	1915	1965					
03277300	N FK KENTUCKY R AT WHITESBURG, KY	66.40	370703	0824929	1953	1975		E	E		
03277340	N FK KENTUCKY R AT BLACKEY, KY	131.00	370743	0825827	1965	1965				E	
					1972	1981					
03277360	ROCKHOUSE CR NR FLETCHER, KY	51.60	370910	0825628	1958	1967				E	
03277370	LINE FK AT DEFEATED CR, KY	40.80	370610	0825920	1958	1976				E	
03277400	LEATHERWOOD CR AT DAISY, KY	40.90	370648	0830533	1965	1974*	E	E	E		
03277411	N FK KENTUCKY R AT CORNETTSVILLE, KY	322.00	370743	0830511	1958	1972				E	
03277437	BREEDING CR NR ISOM, KY	0.69	381234	0825542	1977	1985	E		E		
03277630	BRIAR FK NR HAZARD, KY	1.32	371520	0831726	1976	1985	E		E		
03277835	TROUBLESOME CR AT DRAWF, KY	59.90	372030	0830707	1958	1967				E	
03277915	BALLS FK AT ARY, KY	45.40	372235	0830850	1959	1975				E	
03278000	BEAR BR NR NOBLE, KY	2.21	372702	0831143	1955	1973*	E	E	E		
03278500	TROUBLESOME CR AT NOBLE, KY	177.00	372636	0831306	1950	1981		E			
03279000	TROUBLESOME CR NR CLAYHOLE, KY	187.00	372755	0831605	1928	1931		E			
03279400	QUICKSAND CR AT LUNAH, KY	101.00	373331	0831104	1958	1972				E	
03279500	QUICKSAND CR NR JACKSON, KY	153.00	373354	0831330	1928	1931		E			
03280500	N FK KENTUCKY R NR AIRDALE, KY	1294.00	373625	0833750	1928	1942		E			
03280551	MIDDLE FK KENTUCKY R AT ASHER, KY	70.60	370310	0832400	1958	1976				E	
03280570	GREASY CR AT NAPIER, KY	37.70	365919	0831719	1975	1981				E	
03280590	GREASY CR AT HOSKINSTON, KY	95.00	370429	0832310	1958	1967				E	
03280900	MIDDLE FK KENTUCKY R AT BUCKHORN, KY	420.00	372045	0832807	1957	1975*	E	E	E		
03281016	RED BIRD R NR SPRING CR, KY	52.70	370231	0833249	1976	1981				E	
03281030	RED BIRD R AT BIG CR, KY	125.00	370924	0833522	1954	1972			E	E	
03281065	GOOSE CR AT GOOSEROCK, KY	49.60	370450	0834133	1976	1981				E	
03281080	COLLINS FK AT BLUEHOLE, KY	67.40	370613	0834519	1958	1976				E	
03281090	PACES CR NR GARRARD, KY	.47	370817	0834201	1976	1985	E		E		
03281200	S FK KENTUCKY R AT ONEIDA, KY	486.00	371623	0833856	1953	1982	E		E		
03281350	SEXTON CR AT TAFT, KY	71.00	372113	0834135	1959	1964				E	
					1967	1967					
					1975	1977					
					1979	1981					
03282045	STURGEON CR NR HEIDELBERG, KY	96.40	373142	0834736	1942	1972				E	
03282135	S FK STATION CAMP CR NR DRIP ROCK, KY	41.40	373340	0835801	1959	1976				E	
03282170	STATION CAMP CR AT WAGERSVILLE, KY	115.00	373715	0835734	1954	1972				E	
03282190	REDLICK CR NR STATION CAMP, KY	69.50	373340	0835801	1959	1976				E	
03283000	STILLWATER CR AT STILLWATER, KY	24.00	374524	0832912	1954	1973*	E	E	E		
03283100	RED R NR PINE RIDGE, KY	142.00	374911	0833429	1969	1976					
03283630	LULBEGRUD CR AT LOG LICK, KY	49.30	375138	0840124	1973	1981				E	
03283830	MUDDY CR AT DOYLESVILLE, KY	63.80	375048	0840945	1973	1977				E	
					1979	1981					
03283995	OTTER CR NR FORD, KY	63.50	375215	0851645	1973	1977				E	
03284100	BOONE CR AT GRIMES MILL RD NR LOCUST GROVE, KY	41.80	375503	0842028	1967	1974				E	
03284300	SILVER CR NR KINGSTON, KY	28.60	373751	0841648	1967	1983		E			
03284310	SILVER CR NR BEREA, KY	53.40	373851	0841855	1975	1983	E		E	E	
03284340	OLD TOWN BR TR NR RICHMOND, KY	1.83	374223	0841908	1976	1985	E		E		
03284350	SILVER CR NR RICHMOND, KY	98.50	374236	0842348	1972	1977				E	
					1979	1981					
03284415	PAINT LICK CR AT PAINT LICK, KY	54.40	373753	0842443	1973	1974				E	
03284450	PAINT LICK CR NR MCCREARY, KY	97.60	374229	0842852	1954	1974				E	
03284495	SUGAR CR NR BUCKEYE, KY	41.50	374356	0843326	1975	1977				E	
03284500	KENTUCKY R AT LOCK 8 NR CAMP NELSON, KY	4414.00	374443	0843512	1910	1971	E	E	E		
03284600	KENTUCKY R AT CAMP NELSON, KY	4528.00	374610	0843703	1940	1971		E	E		
03284720	DIX R AB COPPER CR NR CRAB ORCHARD, KY	44.40	372639	0842742	1973	1976				E	
03284750	DIX R BL COPPER CR NR CRAB ORCHARD, KY	70.60	372727	0842841	1973	1976				E	
03284800	DIX R NR STANFORD, KY	160.00	373318	0843610	1973	1976				E	
03284935	HANGING FK CR NR STANFORD, KY	46.90	373244	0844342	1973	1974				E	
03284995	HANGING FK CR NR HUBBLE, KY	91.10	373724	0844049	1973	1974				E	
03235500	DIX R NR BURGIN, KY	395.00	374510	0844210	1909	1922		E			
03286500	KENTUCKY R AT L7 AT HIGHBRIDGE, KY	5036.00	374945	0844326	1901	1927		E			
03287130	CLEAR CR NR MORTONSVILLE, KY	61.60	375637	0844553	1973	1977				E	
03287160	GILBERT CR TR NR SALVISA, KY	.81	375840	0845207	1975	1978			E		

STATION NUMBER	STATION NAME AND LOCATION	DRAINAGE AREA	LATITUDE	LONGITUDE	SW BEGIN YEAR	SW END YEAR	PEAK STAGE	COMPLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
03287550	BENSON CR NR FRANKFORT, KY	107.00	381211	0845256	1943	1972				E	
03288000	N ELKHORN CR NR GEORGETOWN, KY	119.00	381220	0843049	1949	1983		E			
03288260	CANE RUN NR GEORGETOWN, KY	45.40	381235	0843639	1973	1974				E	
03288450	N ELKHORN CR AT SWITZER, KY	265.00	381512	0844509	1972	1977				E	
03288500	CAVE CR NR FORT SPRING, KY	2.53	380115	0843538	1953	1972*	E	E	E	E	
03289410	S ELKHORN CR NR WOODLAKE, KY	156.00	381107	0844416	1972	1981				E	
03289500	ELKHORN CR NR FRANKFORT, KY	473.00	381607	0844853	1939	1983		E			
03290000	FLAT CR NR FRANKFORT, KY	5.63	381753	0845632	1952	1971*	C	E	C		
03290420	SIX MILE NR DEFOE, KY	42.60	382239	0850034	1973	1974				E	
03290490	SIX MILE CK NR LOCKPORT, KY	76.50	382551	0850020	1973	1974				E	
03290675	DRENNON CK AT DRENNON SP, KY	82.50	383047	0850252	1973	1974				E	
03291000	EAGLE CR AT SADIEVILLE, KY	42.90	382322	0843236	1941	1974	E	E	E	E	
03291110	EAGLE CR NR NEW COLUMBUS, KY	124.00	382646	0843948	1972	1974				E	
03291270	EAGLE CR NR HOLBROOK, KY	258.00	383811	0844221	1954	1954				E	
					1957	1957					
					1962	1962					
					1972	1981					
03291490	TEN MILE CR NR FOLSOM, KY	68.40	384253	0844458	1973	1976				E	
03291500	EAGLE CR AT GLENCOE, KY	437.00	384218	0844926	1915	1977*	C	E	C		C
03291700	LITTLE KY R NR BEDFORD, KY	73.20	383328	0851634	1950	1972				E	
03292100	CORN CR NR BEDFORD, KY	27.50	383630	0852521	1975	1981				E	
03284550	W HICKMAN CR AT JONESTOWN, KY	11.00	375830	0842954	1975	1984		E			
03292467	HARRODS CR NR SKYLIGHT, KY	60.30	382315	0853127	1972	1974				E	
03292500	S FK BEARGRASS CR AT LOUISVILLE, KY	17.20	381239	0854207	1940	1940					
					1945	1953					
					1955	1983		E			
03293500	M FK BEARGRASS CR AT LOUISVILLE, KY	24.80	381500	0854310	1939	1983		C			
						1985					
03295000	SALT R NR HARRODSBURG, KY	41.40	374526	0845223	1953	1973*	E	E	E		
03295290	SALT R AT FOX CR, KY	131.00	375952	0845735	1972	1976					
03295500	SALT R NR VAN BUREN, KY	196.00	375806	0850803	1938	1982		E			
03295560	BEECH CR NR TAYOLORSVILLE, KY	53.20	380108	0851722	1974	1975				E	
03295610	SALT R AT TAYLORSVILLE, KY	359.00	380144	0852038	1937	1975				E	
					1972	1976					
03295705	BULLSKIN CR AT FINCHVILLE, KY		381000	0851800	1974	1975		E		E	
03295800	BRASHEARS CR NR FINCHVILLE, KY	147.00	380820	0851746	1953	1972				E	
03295900	BRASHEARS CR AT TAYLORSVILLE, KY	262.00	380149	0852105	1974	1976				E	
03295985	SIMPSON CR NR TAYLORSVILLE, KY	57.30	375934	0852320	1974	1976			E		
03296000	PLUM CR SUBWATER SHED NO. 4 NR SIMPSONVILLE, KY	1.55	381027	0852205	1955	1964*		E			
03296500	PLUM CR NR WILSONVILLE, KY	19.10	380620	0852614	1954	1961*	E	E	E	E	
03296700	PLUM CR SWS N 15 NR WILSONVILLE, KY	1.03	380544	0852441	1957	1961*		E			
03296800	PLUM CR SWS N 17 NR WATERFORD, KY	.52	380407	0852448	1957	1961*		E			
03297000	LITTLE PLUM CR NR WATERFORD, KY	5.15	380344	0852545	1954	1961*	E	E	E		
03297500	PLUM CR AT WATERFORD, KY	31.80	380305	0852555	1954	1974*	E		E		
03297700	COX CR NR HIGHGROVE, KY	95.80	375824	0853233	1968	1972				E	
03297970	LONG RUN NR EASTWOOD, KY	15.20	381412	0852609	1974	1977*	E	E	E		
03298390	FLOYDS FK NR GAP IN KNOB, KY	259.00	380204	0853933	1972	1976				E	
03298710	N ROLLING FK NR GRAVEL SWITCH, KY	66.20	373319	0850214	1974	1981				E	
03298760	N ROLLING FK AT BRADSFORDVILLE, KY	95.70	373022	0850834	1972	1977				E	
03298865	BIG S FK AT BRADSFORDVILLE, KY	59.60	372918	0850757	1974	1981				E	
03299445	POTTINGER CR NR NEW HOPE, KY	43.50	373835	0853157	1974	1978				E	
					1980	1981					
03300000	BEECH FK NR SPRINGFIELD, KY	85.90	374215	0850845	1953	1972*	E	E	E		
03300300	CHAPLIN R AT SHARPSVILLE, KY	140.00	375128	0850401	1954	1972				E	
03300390	CHAPLIN R NR CHAPLIN, KY	262.00	375214	0851351	1972	1977				E	
03300498	CARTWRIGHT CR AT FREDRICKTOWN, KY	82.30	374545	0851929	1972	1977				E	
03300500	BEECH FK AT FREDERICKTOWN, KY	542.00	374535	0852100	1929	1932		E			
03300780	HARDINS CR NR HOLY CROSS, KY	57.80	374241	0852313	1975	1978				E	
					1980	1981					
03301000	BEECH FK AT BARDSTOWN, KY	669.00	374749	0852851	1939	1974*	C	E	C		
03301940	NORTHERN DITCH AT OKOLONA, KY	11.10	380901	0854137	1974	1979		E			
03302100	OTTER CR AT GRAHAMTON, KY	88.40	375406	0860132	1953	1972				E	
03302150	DOE RUN NR BRANDENBURG STATION, KY	52.70	375728	0860718	1953	1972				E	
03303195	SINKING CR AT ROSETTA, KY	36.00	374747	0861625	1970	1976				E	
03303198	SINKING CR DENTS BR NR IRVINGTON, KY	66.10	374918	0861742	1970	1976				E	
03303200	SINKING CR NR IRVINGTON, KY	86.70	375018	0861926	1953	1972				E	
03303205	SINKING CR NR LODIBURG, KY	125.00	375206	0862316	1971	1977				E	
03303210	SINKING CR AT SAMPLE, KY	222.00	375342	0862905	1953	1970				E	
03303450	BLACKFORD CR NR MACEO, KY	111.00	375356	0865911	1953	1974				E	
03303500	OHIO R AT OWENSBORO, KY	97200.00	374642	0870632	1940	1954*	E	E	E		
03304500	MCGILLS CR NR MCKINNEY, KY	2.14	372638	0844152	1951	1971*	E		E		
03305000	GREEN R NR MCKINNEY, KY	22.40	372519	0844501	1951	1973*	E	E	E		
03305500	GREEN R NR MOUNT SALEM, KY	36.30	372440	0844511	1954	1961*	E	E	E		
03305520	GREEN R AT MIDDLEBURG KY	66.50	372106	0844909	1972	1974				E	
03305660	GREEN R NR DUNNVILLE, KY	221.00	371313	0845912	1972	1977				E	
03305720	S FK NR DUNNVILLE, KY	71.00	371249	0845814	1972	1978				E	

DISCONTINUED GAGING-STATION RECORDS

STATION NUMBER	STATION NAME AND LOCATION	DRAINAGE AREA	LATI-TUDE	LONGI-TUDE	SW BEGIN YEAR	SW END YEAR	PEAK ST-AGE	COM-PL-ETE ST-AGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
03305760	GOOSE CR AT DUNNVILLE, KY	51.60	371159	0850016	1972	1977				E	
03305800	GREEN R AT NEATSVILLE, KY	399.00	371130	0850744	1953	1973				E	
03305865	CASEY CR AT CASEY CR, KY	74.70	371757	0850900	1972	1977				E	
03305945	ROBINSON CR AT ACTON, KY	48.40	372031	0851441	1974	1981				E	
03306500	GREEN R AT GREENSBURG, KY	736.00	371513	0853011	1939	1975*	E	E	E		
03306690	RUSSELL CR NR JOPPA, KY	62.90	370405	0851446	1974	1981				E	
03306850	RUSSELL CR AT COLUMBIA, KY		370632	0851810	1972	1974				E	
03307100	RUSSELL CR NR GRESHAM, KY	265.00	371005	0852811	1965	1975*	E	E	E	E	
03307215	BIG PITMAN CR NR BENGAL, KY	47.70	372305	0852737	1974	1978				E	
					1980	1981					
03307295	BIG PITMAN CR NR SUMMERSVILLE, KY	126.00	371817	0853139	1953	1972				E	
03307400	BIG BRUSH CR NR SUMMERSVILLE, KY	45.70	372038	0853726	1974	1978				E	
					1980	1981					
03307500	S FK LITTLE BARREN R AT EDMONTON, KY	18.30	365827	0853611	1941	1972*	E	E	E		
03307600	S FK LITTLE BARREN R AT SULPHUR WELL, KY	79.60	370601	0853804	1975	1981				E	
03307730	E FK LITTLE BARREN R NR SULPHUR WELL, KY	87.40	370605	0853558	1975	1981				E	
03307800	LITTLE BARREN R NR MONROE, KY	244.00	371335	0854039	1960	1976				E	
03308950	ECHO R OUTLET AT MAMMOTH CAVE, KY		371045	0860630	1953	1974				E	
03309000	GREEN R AT MAMMOTH CAVE, KY	1983.00	371043	0860646	1938	1950	E	E	E		
03309100	WET PRONG BUFFALO CR NR MAMMOTH CAVE, KY	2.26	371347	0861024	1962	1974				E	
03309500	MCDOUGAL CR NR HODGENVILLE, KY	5.34	373237	0854019	1953	1971*	E	E	E	E	
03310000	N FK NOLIN R AT HODGENVILLE, KY	36.40	373433	0854425	1941	1973*	E	E	E		
03310078	S FK NOLIN R AT MATHERS MILL, KY	49.60	373235	0854607	1974	1978				E	
03310160	NOLIN R NR GLENDALE, KY	185.00	373503	0855459	1972	1973				E	
03310570	VALLEY CR NR GLENDALE, KY	90.10	373641	0855550	1973	1981				E	
03310380	BACON CR AT HIGHWAY 31W AT BONNIEVILLE, KY	53.50	372230	0855409	1974	1981				E	
03310500	NOLIN R AT WAX, KY	600.00	372043	0860721	1935	1962*	E	E	E		
03310600	DOG CR NR MAMMOTH CAVE, KY	8.12	371647	0860705	1961	1974				E	
03311100	BYLEW CR NR MAMMOTH CAVE, KY	5.16	371540	0861307	1961	1974			E	E	
03312000	BEAR CR NR LEITCHFIELD, KY	30.80	372536	0861645	1950	1971*	E	E	E		
03312100	BEAR CR NR ROUNDHILL, KY	137.00	371456	0862140	1953	1972				E	
03312500	BARREN R NR PAGEVILLE, KY	533.00	365109	0860437	1939	1963	E	E	E		
03313500	W BAYS FK AT SCOTTSVILLE, KY	7.47	364453	0861147	1951	1972	E	E	E		
03313800	LICK CR NR FRANKLIN, KY	21.60	364723	0862924	1959	1983	E		E		
03313900	TRAMMEL CR NR SCOTTSVILLE, KY	93.40	364354	0861623	1953	1972				E	
03314000	DRAKES CR NR ALVATON, KY	478.00	365343	0862250	1940	1971	E	E	E	E	
03315000	BARREN R A L 1 A GREENCASTLE, KY	1968.00	370510	0863010	1923	1937	E	E	E		
03315265	GASPER R NR RICHELIEU, KY		365925	0863753	1972	1977				E	
03315300	GASPER R AT HADLEY, KY	190.00	370312	0863547	1953	1972				E	
03315810	MUDDY CR AT DUNBAR, KY	94.30	371101	0864624	1953	1974				E	
03316000	MUD R NR LEWISBURG, KY	90.50	370015	0865426	1940	1972*	E	E	E		
03316200	WOLFLICK CR NR LEWISBURG, KY	116.00	370108	0865733	1953	1972				E	
03316500	GREEN R NR PARADISE, KY	6182.00	371553	0865843	1940	1981		E			
					1961	1981					
03317000	ROUGH R NR MADRID, KY	225.00	373531	0861946	1936	1959	E	E	E		
03317500	N FK ROUGH T NR WESTVIEW, KY	42.00	374132	0862329	1954	1973*	E	E	E		
03318000	ROUGH R NR FALLS OF ROUGH, KY	454.00	373633	0862947	1940	1956		E			
03318200	ROCK LICK CR NR GLEN DEAN, KY	20.10	373924	0863343	1955	1971*		E		E	
03321000	POND R NR WHITE PLAINS, KY	343.00	371337	0872057	1927	1940	E	E	E		
03321215	CYPRESS CR NR RUMSEY, KY	149.00	373032	0871900	1972	1976				E	
03321350	S FK PANTHER CR NR WHITESVILLE, KY	58.20	373708	0865315	1968	1983		E			
03321370	S FK PANTHER CR NR MASONVILLE, KY	109.00	373843	0870039	1954	1972				E	
03321410	N FK PANTHER CR NR MASONVILLE, KY	88.30	374205	0870354	1954	1972				E	
03321500	GREEN R AT LOCK AND DAM 1 AT SPOTTSVILLE, KY	9181.00	375130	0872435	1928	1931		E			
03322250	OHIO R AT MOUNT VERNON, KY		375543	0875344	1977	1980		E			
03322350	HIGHLAND CR NR WAVERLY, KY	62.30	374122	0874508	1975	1977				E	
03322400	HIGHLAND CR NR UNIONTOWN, KY	166.00	374551	0874957	1953	1977				E	
03383500	TRADEWATER R NR DALTON, KY	283.00	371628	0874748	1927	1940	E	E	E		
03384000	ROSE CR AT NEBO, KY	2.10	372258	0873759	1952	1970*	C	E	C		
03384500	OHIO R AT DAM 51 AT GOLCONDA, IL	143900.00	372128	0882857	1941	1952		E			
03400000	POOR FK A HARLAN LETCHER CO LIN, KY	51.70	370000	0825445	1940	1943		E			
03400585	POOR FK AT ROSSPOINT, KY	142.00	365304	0831719	1972	1977				E	
03400700	CLOVER FK AT EVARTS, KY	82.40	365156	0831137	1959	1983	E		E		
03400796	CRANE CR NR SMITH, KY	1.63	364451	0831550	1976	1977		E			
03400985	MARTINS FK AT HARLAN, KY	116.00	364957	0831336	1960	1960					E
03401040	PEARL BR AT WALLINS CR, KY	1.40	365007	0832443	1976	1985	E		E		
03401400	L YELLOW CR AT MIDDLESBORO, KY	10.80	363630	0834213	1959	1966		E	E		
03401500	YELLOW CR BYPASS AT MIDDLESBORO, KY	35.30	363752	0834345	1941	1983*	E		E		
03402230	YELLOW CR NR FERNDALE, KY	99.50	364235	0633840	1972	1981				E	
03402480	CLEAR CR AT CLEAR CR SPRINGS, KY	38.50	364340	0834342	1975	1981				E	
03402500	CUMBERLAND R AT PINEVILLE, KY	676.00	364448	0834134	1928	1931		E			
03402850	LEFT FK STRAIGHT CR AT CARY, KY	33.70	364729	0833957	1958	1976				E	
03402852	STRAIGHT CR AT STRAIGHT CR, KY	89.80	364624	0834012	1953	1967				E	
03403180	STINKING CR AT DEWITT, KY	49.10	365235	0834417	1961	1975				E	
03403255	ROAD E CR AT DEWITT, KY	25.20	365238	0834417	1961	1975				E	
03403530	RICHLAND CR NR BARBOURVILLE, KY	27.70		0835420	1961	1976				E	
03403538	LITTLE RICHLAND CR NR HINKLE, KY	11.60	365549	0834954	1974	1983	E		E		

DISCONTINUED GAGING-STATION RECORDS

STATION NUMBER	STATION NAME AND LOCATION	DRAINAGE AREA	LATI-TUDE	LONGI-TUDE	SW BEGIN YEAR	SW END YEAR	PEAK ST-AGE	COM-PL-ETE ST-AGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
03403910	CLEAR FK AT SAXTON, KY	331.00	363802	0840642	1968	1983		E			
03404200	JELLICO CR NR WILLIAMSBURG, KY	103.00	364056	0841520	1953	1972				E	
03404390	MARSH CR NR WHITELY CITY, KY	72.00	364438	0842216	1960	1961				E	
					1974	1981					
03404688	LAUREL R NR LILY, KY	52.30	370230	0840254	1974	1981				E	
03404810	LITTLE LAUREL R NR LILY, KY	42.40	370103	0840641	1975	1981				E	
03404867	GOZEY HOLLOW NR CORBIN, KY	.31	365641	0835942	1976	1985	E		E		
03405000	LAUREL R AT CORBIN, KY	201.00	365809	0840738	1910	1373	E	E	E		
03405500	LAUREL R NR VOX, KY	245.00	365705	0841330	1929	1931		E			
03405700	S FK ROCKCASTLE R NR PEOPLES, KY	95.10	371605	0840302	1961	1972				E	
03405818	MIDDLE FK ROCKCASTLE R NR PARROT, KY	79.00	372036	0840446	1975	1981				E	
03405842	HORSE LICK CR NR LAMERO, KY	61.70	371912	0840818	1975	1981				E	
03405854	BIG HURRICANE BR AT CONWAY, KY	1.91	372751	0842008	1976	1985	E		E		
03405868	ROUNDSTONE CR AT HOMMEL, KY	52.90	372318	0841739	1975	1981				E	
03405900	ROUNDSTONE CR AT LIVINGSTON, KY	144.00	371755	0841250	1953	1976					
03406000	WOOD CR NR LONDON, KY	3.89	370940	0840643	1954	1971*	C	E	C	E	
03406330	SKEGG CR NR BILLOWS, KY	55.90	371348	0841637	1975	1981				E	
03407000	ROCKCASTLE R AT ROCKCASTLE SPRINGS, KY	745.00	370035	0841855	1921	1931	E	E	E		
03407100	CANE BR NR PARKERS LAKE, KY	.67	365205	0842657	1956	1966*	C	E	C		
						1974					
03407300	HELTON BR AT GREENWOOD, KY	.85	365307	0842855	1956	1974*	C	E	C		
03407425	BUCK CR NR WOODSTOCK, KY	73.00	371634	0843426	1975	1981				E	
03407640	BUCK CR AT DYKES, KY	253.00	370336	0842535	1972	1981				E	
03410590	ROCK CR NR YAMACRAW, KY	58.90	364210	0843346	1965	1965				E	
					1975	1981					
03410825	LITTLE S FK CUMBERLAND R NR GRIFFIN, KY	56.40	364054	0844338	1975	1981				E	
03410900	LITTLE S FK CUMBERLAND R NR OIL VALLEY, KY	98.20	364530	0844020	1953	1972				E	
03411000	S FK CUMBERLAND R AT NEVELSVILLE, KY	1271.00	365025	0843500	1915	1950	E	E	E		
03411500	CUMBERLAND R AT BURNSIDE, KY	4865.00	365921	0843635	1825	1950	E	E	E		
03411700	LAKE CUMBERLAND AT BURNSIDE, KY	4869.00	365928	0843710	1951	1970					
03412000	PITMAN CR NR SOMERSET, KY	26.30	370805	0843515	1949	1953		E			
03412500	PITMAN CR AT SOMERSET, KY	31.30	370701	0843531	1953	1972*	E	E	E		
03412700	FISHING CR NR HOGUE, KY	59.80	370950	0844232	1968	1977				E	
03413000	CUMBERLAND R NR JAMESTOWN, KY	5331.00	365600	0850000	1937	1940		E			
03413200	BEAVER CR NR MONTICELLO, KY	43.40	364751	0845346	1968	1983		E			
03413345	OTTER CR NR SUSIE, KY	67.10	364619	0845848	1953	1966				E	
03414080	CROCUS CR NR BAKERTON, KY	108.00	365232	0852039	1972	1976				E	
03414175	MARROWBONE CR AT GRIDER, KY	80.70	364815	0852547	1975	1981				E	
03435100	RED R NR ADAIRVILLE, KY	229.00	364204	0865142	1957	1972				E	
03437500	S FK LITTLE R AT HOPKINSVILLE, KY	46.50	365022	0872852	1950	1973*	E	E	E		
03437610	WHITE CR TR NR HOPKINSVILLE, KY	.19	365407	0872815	1975	1976		E			
03438070	MUDDY R NR DERULEAN, KY	30.50	365840	0874236	1968	1983		E			
03438167	DRY CR NR LAMASCO, KY	34.60	370137	0875548	1968	1972			E	E	
03438170	EDDY CR NR LAMASCO, KY	71.70	370159	0875626	1968	1974				E	
03438191	KENTUCKY-BARKLEY CANAL NR GRAND RS, KY		365939	0881236	1971	1974		E			
03438200	CUMBERLAND R AT EUREKA, KY	17594.00	370037	0881256	1939	1964		E			
03438470	LIVINGSTON CR NR DYCUSBURG, KY	112.00	370835	0880948	1954	1974				E	
03608000	TENNESSEE R AT SHANNON DAM SITE NR MURRAY, KY	39780.00	363228	0880211	1931	1937		E			
03608500	TENNESSEE R AT AURORA LANDING, KY	40010.00	364507	0880658	1930	1932		E			
03610000	CLARKS R AT MURRAY, KY	89.70	363534	0881800	1952	1971*	E	E	E		
03610500	CLARKS R NR BENTON, KY	227.00	365224	0882048	1938	1973*	E	E	E		
03610545	W FK CLARKS R NR BREWERS, KY	68.70	364648	0882803	1968	1983		E			
03611000	OHIO R AT PADUCAH, KY	202800.00	370522	0883540	1873	1975					
03613000	HUMPHREY CR AT LACENTER, KY	44.20	370439	0885721	1953	1972				E	
07022500	PERRY CR NR MAYFIELD, KY	1.72	364045	0883757	1953	1965*	C	E	C	E	
					1966	1972					
07022600	MAYFIELD CR AT MAYFIELD, KY	95.10	364454	0883706	1954	1972				E	
07023000	MAYFIELD CR AT LOVELACEVILLE, KY	204.00	365709	0884930	1938	1972*	E	E	E		
07023200	MISSISSIPPI R AT COLUMBUS, KY	921900.00	364558	0890648	1843	1958	E		E		
07023500	OBION CR AT PRYORSBURG, KY	36.30	364110	0884335	1951	1973*	E	E	E		
07023700	OBION CR NR ARLINGTON, KY	203.00	364530	0890013	1953	1972				E	
07024000	BAYOU DE CHIEN NR CLINTON, KY	68.70	363743	0885750	1940	1978*	C	C	C		
						1984					
07024070	MISSISSIPPI R AT HICKMAN, KY	922500.00	363422	0891156	1926	1958	E		E		

* Period of continuous-record only
C Currently operated.
E Eliminated

STATION NUMBER	STATION NAME AND LOCATION	LATI-TUDE	LONGI-TUDE	COU NTY	DRAINAGE AREA	QW BEGIN YEAR	QW END YEAR	BIO. AC-TIVE STA-TUS	PHY. AC-TIVE STA-TUS	SED. AC-TIVE STA-TUS	CHEM ICAL AC-TIVE STA-TUS
03201400	BRUSHY FK AT THOMAS, KY	374050	0823519	071		1980	1982		N	N	N
03207845	CARD CR AT MOUTHCARD, KY	372254	0821530	195	4.10	1974	1980		N	N	N
03207875	FEDS CR AT FEDS CR, KY	372407	0821438	195	11.60	1972	1975		N	N	N
03207905	BIG CR AT DUNLAP, KY	372543	0821452	195	9.55	1974	1976		N	N	N
03207915	ELKFOOT BRANCH NR NIGH, KY	372352	0821703	195	0.70	1980	1984			N	
03207925	ISLAND CR NR PHYLLIS, KY	372523	0821817	195	2.42	1974	1980		N	N	N
03207935	LICK CR AT LICK CR, KY	372344	0821808	195	6.70	1972	1976		N	N	N
03207940	MILLERS CR NR PHYLLIS, KY	372519	0821953	195	1.60	1973	1981		N	N	N
03207962	DICKS FK AT PHYLLIS, KY	372657	0822016	195	0.82	1975	1979			N	
						1982	1984			N	
03208000	LEVISA FK BELOW FISHTRAP DAM, KY	372458	0822515	195	392.00	1965	1979		N	N	N
03209300	RUSSELL FK AT ELKHORN CITY, KY	371814	0822035	195	554.00	1961	1983		N	N	N
03209402	ELKHORN CR NR ELKHORN CITY, KY	371635	0822239	195		1980	1982		N	N	N
03209420	MARROWBONE CR AT WOLFPIT, KY	372101	0822524	195		1980	1982		N	N	N
03209430	GREASY CR NR SUTTON, KY	372336	0822806	195		1980	1982		N	N	N
03209438	DORTON CR NR DORTON, KY	371652	0823347	195		1980	1982		N	N	N
03209453	LONG FK NR VIRGIE, KY	372023	0823521	195		1980	1982		N	N	N
03209457	ROBINSON CR AT ROBINSON CR, KY	372316	0823312	195		1980	1982		N	N	N
03209460	SHELBY CR AT SHELBIANA, KY	372524	0822957	195	112.00	1965	1979		N	N	N
03209530	MUD CR NR GRETHEL, KY	372742	0823921	071		1980	1982		N	N	N
03209540	TOLLAR CR NR HAROLD, KY	373128	0823851	071		1980	1982		N	N	N
03209545	MUD CR AT HAROLD, KY	373213	0823840	071	51.90	1978	1980		N	N	N
03209585	RIGHT FK BEAVER CR AT TOPMOST, KY	372135	0824722	119		1980	1982		N	N	N
03209590	CANEY FK BEAVER CR NR RAVEN, KY	372450	0824756	119		1980	1982		N	N	N
03209600	RIGHT FK BEAVER CR AT WAYLAND, KY	372635	0824628	071	73.90	1978	1980		N		N
03209603	JONES FK AT BETTY, KY	372701	0825033	119		1980	1982		N	N	N
03209607	SALTLICK CR NR BOSCO, KY	372940	0825121	071		1980	1982		N	N	N
03209650	LEFT FK BEAVER CR AT DRIFT, KY	372856	0824509	071	58.50	1978	1980		N		N
03209680	LEFT FK BEAVER CR AT PRINTER, KY	373204	0824438	071		1980	1982		N	N	N
03209700	BEAVER CR AT MARTIN, KY	373410	0824528	071	228.00	1961	1971		N		N
03209800	LEVISA FK AT PRESTONSBURG, KY	374015	0824638	071	1702.00	1976	1979		N	N	N
03209850	MIDDLE CR NR PRESTONSBURG, KY	373906	0824954	071		1980	1982		N	N	N
03209870	LEFT FK MIDDLE CR NR GOODLOE, KY	373647	0825053	071		1980	1982		N	N	N
03209890	MIDDLE CR NR PRESTONSBURG, KY	373917	0824749	071	62.10	1978	1980		N	N	N
03209910	ABBOTT CR NR PRESTONSBURG, KY	374052	0824741	071		1980	1982		N	N	N
03210040	RACCOON CR NR ZEBULLON, KY	373055	0822705	195	14.80	1973	1980		N	N	N
03210060	RACCOON CR NR ZEBULLON, KY	373312	0822719	195		1980	1982		N	N	N
03210160	CANEY FK NR GULNARE, KY	373511	0823223	195	3.74	1973	1980		N	N	N
03210310	BRUSHY FK AT HEENON, KY	373958	0822903	195	20.40	1973	1976		N	N	N
03210420	BUFFALO CR NR ENDICOTT, KY	373758	0823618	071	6.21	1973	1980		N	N	N
03210450	BUFFALO CR NR GERMAN, KY	374004	0823818	071		1980	1982		N	N	N
03211690	DANIELS CR NR ODDS, KY	374450	0824218	115		1980	1982		N	N	N
03211700	DANIELS CR AT MOUTH NR VAN LEAR, KY	374450	0824322	115	12.00	1978	1980		N		N
03211800	LEVISA FK AB PAINT CR AT PAINTSVILLE, KY	374850	0824729	115	1975.00	1974	1979		N		N
03211970	PAINT CR NR ELNA, KY	375336	0825742	115	79.30	1967	1967		N		N
03211997	PAINT CR AB BARNETTS CR NR STAFFORDSVILLE, KY	375014	0825214	127		1971	1972		N		N
03212510	GREASY CR NR OFFUTT, KY	375019	0824258	115		1980	1982		N	N	N
03212520	TOMS CR NR TUTOR KEY, KY	375042	0824546	115		1980	1982		N	N	N
03212530	GEORGES CR NR ULYSSES, KY	375656	0824013	127		1980	1982		N	N	N
03212535	RIGHT FK CR NR CHARLEY, KY	375745	0824149	127		1980	1982		N	N	N
03213630	RIGHT FK HURRICANE CR NR STOPOVER, KY	372946	0820522	195	0.82	1980	1984			N	
03213670	LEFT FK PETER CR AT JAMBOREE, KY	372944	0820814	195		1980	1982		N	N	N
03213680	RIGHT FK PETER CR NR PHELPS, KY	373017	0820935	195		1980	1982		N	N	N
03213690	BLACKBERRY CR AT RANSOM, KY	373406	0821118	195		1980	1982		N	N	N
03213698	POND CR NR TOLER, KY	373814	0821513	195		1980	1982		N	N	N
03213750	BIG CR NR HATFIELD, KY	374334	0822106	195		1980	1982		N	N	N
03214300	WOLF CR NR MCCLURE, KY	374555	0822855	159		1980	1982		N	N	N
03214600	M FK ROCKCASTLE CR AT INEZ, KY	375114	0823243	159	33.34	1980	1982		N	N	N
03214650	COLDWATER FK NR INEZ, KY	375017	0823053	159	17.85	1980	1982		N	N	N
03214700	ROCKCASTLE CR AT INEZ, KY	375205	0823232	159	63.10	1970	1972	N	N	N	N
03214720	ROCKHOUSE FK NR MILO, KY	375306	0823455	159		1980	1982		N	N	N
03214730	ROCKCASTLE CR AT CLIFFORD, KY	380007	0823112	127	121.00	1965	1975		N		N
03215250	LEFT FK BLAINE CR NR MARTHA, KY	375956	0825621	127		1980	1982		N	N	N
03215320	LOWER LAUREL CR NR FLATGAP, KY	375703	0825333	115		1967	1967		N		N
03215367	CAINES CR NR BLAINE, KY	380142	0825145	127		1980	1982		N	N	N
03215370	BLAINE CR AT HWY 32 BR AT BLAINE, KY	380133	0825113	127	73.80	1978	1980		N		N
03215380	HOOD CR AT BLAINE, KY	380140	0825028	127		1980	1982		N	N	N
03215420	BRUSHY CR NR CORDELL, KY	380114	0824826	127		1980	1982		N	N	N
03215430	BLAINE CR BL BRUSHY CR NR BLAINE, KY	380312	0824642	127	151.00	1971	1980		N		N
03215440	RICH CR NR ADAMS, KY	380351	0824506	127		1971	1972		N		N
03215470	LITTLE BLAINE CR NR EVERGREEN, KY	380338	0824117	127		1980	1982		N	N	N
03215480	LITTLE BLAINE CR AT EVERGREEN, KY	380355	0824156	127	23.00	1971	1980		N		N
03215490	BLAINE CR NR YATESVILLE, KY	380632	0824204	127	206.00	1971	1972		N		N
03215500	BLAINE CR AT YATESVILLE, KY	380840	0824105	127	217.00	1965	1979		Y		N
03215550	CAT FK CR AT FALLSBURG, KY	381103	0824118	127		1980	1982		N	N	N
03215700	BIG SANDY R AT CATLETTSBURG, KY	382414	0823544	019	4281.00	1955	1975		N		N
03216180	LITTLE SANDY R AT SANDY HOOK, KY	380514	0830728	063		1980	1982		N	N	N
03216230	BIG CANEY CR NR STARK, KY	380922	0830946	063		1980	1982		N	N	N

DISCONTINUED WATER-QUALITY RECORDS

STATION NUMBER	STATION NAME AND LOCATION	LATI-TUDE	LONGI-TUDE	COU NTY	DRAINAGE AREA	QW BEGIN YEAR	QW END YEAR	BIO. AC-TIVE STA-TUS	PHY. AC-TIVE STA-TUS	SED. AC-TIVE STA-TUS	CHEM ICAL AC-TIVE STA-TUS
03216350	LITTLE SANDY R BL GRAYSON DAM NR LEON, KY	381518	0825925	043	196.00	1966	1979		N		N
03216370	BIG SINKING CR NR ADEN, KY	381603	0830227	043		1980	1982		N	N	N
03216400	LITTLE SANDY R AT LEON, KY	381711	0825939	043	255.00	1978	1980		N		
03216430	LITTLE SANDY R AT DOBBINS, KY	380922	0825549	063		1980	1982		N	N	N
03216450	DRY FK AT WILLARD, KY	381230	0825338	043		1980	1982		N	N	N
03216480	LITTLE FK LITTLE SANDY R NR GRAYSON, KY	381815	0825623	043	132.00	1973	1975		N		N
03216520	BERET CR NR GRAYSON, KY	382038	0825709	043		1980	1982		N	N	N
03216540	E FK LITTLE SANDY R NR FALLSBURG, KY	381401	0824232	127	12.20	1978	1983		N		
03216558	E FK LITTLE SANDY R NR CANNONSBURG, KY	382313	0824314	019		1980	1982		N	N	N
03216567	WILLIAMS CR AT PRINCESS, KY	382304	0824450	019		1980	1982		N	N	N
03216570	E FK LITTLE SANDY R NR ARGILLITE, KY	382844	0824546	089	130.00	1970	1972		N		N
03216770	SOLDIER FK AT LAWTON, KY	381556	0831306	043		1971	1972		N		N
03216930	TYGARTS CR AT IRON HILL, KY	382424	0830222	043		1971	1972		N		N
03216960	BUFFALO CR NR GESLING, KY	382530	0830520	043		1980	1982		N	N	N
03237230	KINNICONICK CR NR RUGLESS, KY	382901	0831655	135	109.00	1970	1972		N		N
03238680	OHIO R AT MELDAHL DAM NR CHILO, OH	384750	0841000	025	70800.00	1967	1970		N		N
03238800	OHIO R AT RAW WATER INTAKE AT CINCINATTI, OH	390411	0842557	061		1970	1970				N
03248165	LICKING R NR FREDVILLE, KY	373600	0825736	153		1980	1982		N	N	N
03248380	BURNING FK AT SALYERSVILLE, KY	374428	0830322	153		1980	1982		N	N	N
03248520	LEFT FK NR HENDRICKS, KY	374250	0830657	153		1980	1982		N	N	N
03248530	RIGHT FK AT FRITZ, KY	374219	0830953	153		1980	1982		N	N	N
03248560	JOHNSON CR AT KERNIE, KY	374524	0831010	153		1980	1982		N	N	N
03248580	LICK CR NR BLOOMINGTON, KY	374855	0830750	153		1980	1982		N	N	N
03248610	WHITE OAK CR AT WHITE OAK, KY	375132	0831213	175		1980	1982		N	N	N
03248670	WILLIAMS CR NR ELAMTON, KY	375608	0830910	175		1980	1982		N	N	N
03248685	ELK FK NR LENOX, KY	375652	0831257	175	59.40	1980	1982		N	N	N
03248710	CANEY CR NR CANEY, KY	374914	0831521	175		1980	1982		N	N	N
03248750	GRASSY CR AT GRASSY CR, KY	375201	0832045	175		1980	1982		N	N	N
03249500	LICKING R AT FARMERS, KY	380655	0833236	011	827.00	1948	1979		N	N	N
03250000	TRIPLETT CR AT MOREHEAD, KY	381104	0832548	205	47.50	1978	1980		N		
03250240	SLATE CR NR OWINGSVILLE, KY	380829	0834343	011	185.00	1970	1971		N		N
03250320	ROCK LICK CR NR SHARKEY, KY	381506	0833504	069	4.01	1978	1983		N		
03250400	LICKING R AT SHERBURNE, KY	381646	0834815	069		1981	1983	N	N	N	N
03251400	NO FK LICKING R NR MILFORD, KY	383500	0840920	023	286.00	1970	1972		N		N
03251500	LICKING R AT MCKINNEYSBURG, KY	383552	0841600	191	2326.00	1951	1979		N	N	N
03251605	STONER CR NR MIDDLETOWN, KY	380651	0840817	017	51.60	1974	1974		N		N
03252190	HINKSTON CR NR SHARPSBURG, KY	381003	0835832	173	78.90	1973	1973		N		N
03252300	HINKSTON CR NR CARLISLE, KY	381433	0840309	017	154.00	1970	1974		N		N
03252500	SO FK LICKING R AT CYNTHIANA, KY	382327	0841811	097	621.00	1949	1983	N	N	N	N
03253500	LICKING R AT CATAWBA, KY	384237	0841839	191	3300.00	1962	1979		N		N
03277205	OHIO R AT LOCK & DAM 39 NR FLORENCE, KY	384641	0845802	077	82910.00	1953	1975		N		
03277260	YONTS CR NR NEON, KY	371053	0824302	133		1980	1982		N	N	N
03277300	NO FK KENTUCKY R AT WHITESBURG, KY	370703	0824929	133	66.40	1970	1975		N		N
03277320	KINGS CR NR ROXANA, KY	370529	0825518	133		1980	1982		N	N	N
03277340	NO FK KENTUCKY R AT BLACKEY, KY	370743	0825827	133	131.00	1971	1975		N		N
03277361	ROCKHOUSE CR NR FLETCHER, KY	370836	0825743	133		1980	1982		N	N	N
03277362	ROCKHOUSE CR AT FLETCHER, KY	370832	0825759	133		1971	1971		N		N
03277370	LINE FK AT DEFEATED CR, KY	370610	0825920	133	40.80	1980	1982		N	N	N
03277380	LINE FK AT ULVAH, KY	370704	0830228	133		1971	1971		N		N
03277411	NO FK KENTUCKY R AT CORNETTSVILLE, KY	370743	0830511	193	322.00	1970	1972		N		N
03277415	RIGHT FK MACYS CR NR FARLAR, KY	371004	0831037	193		1980	1982		N	N	N
03277455	YELLOW CR AT SASSAFRAS, KY	371315	0830319	119		1965	1975		N		N
03277480	CARR FK NR HAZARD, KY	371234	0830727	193		1971	1971		N		N
03277515	LOTTS CR NR DARFK, KY	371701	0831115	193		1980	1982		N	N	N
03277580	BIG CR NR AVAWAN, KY	371409	0831533	193		1980	1982		N	N	N
03277700	GRAPEVINE CR NR LAMONT, KY	372111	0831914	193		1980	1982		N	N	N
03277800	TROUBLESOME CR NR ARY, KY	372201	0830905	193		1980	1982		N	N	N
03277900	BALLS FK NR TALCUM, KY	372208	0830643	119		1980	1982		N	N	N
03278100	BUCKHORN CR NR NOBLE, KY	372655	0831144	025		1980	1982		N	N	N
03279150	LOST CR NR LOST CR, KY	372756	0831914	025		1980	1982		N	N	N
03279250	LAUREL FK NR ELMROCK, KY	372704	0830123	119		1980	1982		N	N	N
03279300	M FK QUICKSAND CR NR DECOY, KY	372957	0830529	119		1980	1982		N	N	N
03279370	HAWLS FK NR TIPTOP, KY	373417	0830548	025		1980	1982		N	N	N
03279400	QUICKSAND CR AT LUNAH, KY	373331	0831104	025	101.00	1970	1972		N		N
03279430	CANEY CR NR CAMP LEWIS, KY	373507	0831128	025		1980	1982		N	N	N
03279460	HUNTING CR NR ROUSSEAU, KY	373533	0831341	025		1980	1982		N	N	N
03279650	SO FK QUICKSAND CR AT PORTSMOUTH, KY	373157	0831948	025		1980	1982		N	N	N
03279700	QUICKSAND CR AT QUICKSAND, KY	373211	0832055	025	203.00	1965	1975		N		N
03280000	NO FK KENTUCKY R AT JACKSON, KY	373246	0832221	025	1101.00	1948	1983	N	N	N	N
03280100	CANE CR NR JACKSON, KY	373304	0832457	025		1980	1982		N	N	N
03280360	ROCKHOUSE CR NR HYDEN, KY	370918	0832307	131		1980	1982		N	N	N
03280400	FROZEN CR NR TAULBEE, KY	373830	0831911	025		1980	1982		N	N	N
03280450	BOONE FK NR VANCLEAVE, KY	373734	0832453	025		1980	1982		N	N	N
03280520	M FK KENTUCKY R NR WARBRANCH, KY	365819	0832656	131		1980	1982		N	N	N
03280530	M FK KENTUCKY R AT ASHER, KY	370240	0832429	131		1971	1971		N		N
03280540	BEECH FK NR HELTON, KY	365727	0832348	131		1980	1982		N	N	N

DISCONTINUED WATER-QUALITY RECORDS

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03280550	BEECH FK AT ASHER, KY	370238	0832408	131	33.90	1971	1971		N		N
03280560	GREASY CR NR NAPIER, KY	365832	0831706	131		1980	1982		N	N	N
03280575	LAUREL FK NR LEWIS CR, KY	365843	0831935	131		1980	1982		N	N	N
03280590	GREASY CR AT HOSKINSTON, KY	370429	0832310	131	95.00	1971	1971		N		N
03280670	CUTSHIN CR NR CINDA, KY	370657	0831642	131		1980	1982		N	N	N
03280750	HELL FOR CERTAIN CR NR KALIOPI, KY	371351	0832430	131		1980	1982		N	N	N
03280950	TURKEY CR NR TURKEY, KY	372857	0833004	025		1980	1982		N	N	N
03281000	M FK KENTUCKY R AT TALLEGA, KY	373318	0833538	129	537.00	1950	1983	N	N	N	N
03281030	RED BIRD R AT BIG CR, KY	370924	0833522	051	125.00	1970	1972		N		N
03281035	BIG CR NR BIG CR, KY	370942	0833416	051		1980	1982		N	N	N
03281045	HECTOR BRANCH NR ERILINE, KY	371118	0833639	051		1980	1982		N	N	N
03281065	GOOSE CR NR GOOSEROCK, KY	370450	0834133	051	49.60	1979	1982		N	N	N
03281075	COLLINS FK NR BLUEHOLE, KY	370503	0834605	051		1980	1982		N	N	N
03281097	HORSE CR NR HIMA, KY	370713	0834646	051		1980	1982		N	N	N
03281133	LITTLE GOOSE CR NR MANCHESTER, KY	370909	0834713	051		1980	1982		N	N	N
03281175	BULLSKIN CR NR BRUTUS, KY	371437	0833506	051		1980	1982		N	N	N
03281200	SO FK KENTUCKY R AT ONEIDA, KY	371623	0833850	051	486.00	1970	1972		N		N
03281340	SEXTON CR NR CHESTNUTBURG, KY	371724	08347[illegible]3	051		1980	1982		N	N	N
03281360	LOWER ALLEN CR NR CONKLING, KY	372238	0834138	189		1980	1982		N	N	N
03281500	SO FK KENTUCKY R AT BOONEVILLE, KY	372645	0834038	189	722.00	1950	1983	N	N	N	N
03282170	STATION CAMP CR AT WAGERSVILLE, KY	373715	0835734	065	115.00	1970	1972		N		N
03282300	KENTUCKY R NR TRAPP, KY	375107	0840448	065		1982	1983		N	N	N
03282400	RED R AT DAYSBORO, KY	374729	0832240	237		1980	1982		N	N	N
03283100	RED R NR PINE RIDGE, KY	374911	0833429	237	142.00	1968	1976		N		N
03283500	RED R AT CLAY CITY, KY	375152	0835559	197	362.00	1965	1979		N		N
03284090	BAUGHMAN FK AT GENTRY ROAD NR ATHENS, KY	375703	0842023	067	7.18	1967	1968		N		N
03284100	BOONE CR AT GRIMES MILL RD NR LOCUST GROVE, KY	375503	0842028	067	41.80	1967	1968		N		N
03284105	KENTUCKY R NR LEXINGTON, KY	375407	0842236	067		1970	1970				N
03284300	SILVER CR NR KINGSTON, KY	373751	0841648	151	28.60	1978	1983		N		
03284350	SILVER CR NR RICHMOND, KY	374236	0842348	151		1973	1975		N		N
03284450	PAINT LICK CR NR MCCREARY, KY	374229	0842852	079	97.60	1970	1972		N		N
03284500	KENTUCKY R AT LOCK 8 NR CAMP NELSON, KY	374443	0843512	113	4414.00	1948	1975		N		N
03284800	DIX R NR STANFORD, KY	373318	0843610	137	160.00	1973	1975		N		N
03284935	HANGING FK CR NR STANFORD, KY	373244	0844342	137	46.90	1974	1974		N		N
03285000	DIX R NR DANVILLE, KY	373831	0843939	079	318.00	1948	1983		N		N
03286200	DIX R AT DIX DAM NR BURGIN, KY	374735	0844222	167	439.00	1961	1979		N		N
03287500	KENTUCKY R AT LOCK 4 AT FRANKFORT, KY	381206	0845254	073	5412.00	1948	1983		N	N	N
03287530	BENSON CR AT FRANKFORT, KY	381225	0845736	073	71.20	1973	1973		N		N
03287550	BENSON CR NR FRANKFORT, KY	381211	0845256	073	107.00	1970	1972		N		N
03287600	N ELKHORN CR AT BRYAN STA RD AT MONTROSE, KY	380435	0842448	067	21.50	1967	1968		N		N
03287620	N ELKHORN CR UNNAMED TR AT MUIR STA RD NR MUI	380521	0842141	067	15.80	1967	1968		N		N
03287700	N ELKHORN CR AT HUFFMAN MILL RD NR MATTOXTOWN	380910	0842628	067	62.70	1967	1968		N		N
03287800	GOOSE CR AT MT HOREB RD NR NEWTOWN, KY	381136	0842648	209	14.20	1967	1968		N		N
03287610	GOOSE CR AT NEWTOWN RD, NR NEW ZION, KY	381136	0842902	209		1967	1967		N		N
03288200	CANE RUN AT BEREA ROAD NR DONERAIL, KY	380819	0843102	067	19.90	1967	1968		N		N
03288260	CANE RUN NR GEORGETOWN, KY	381235	0843639	209	45.40	1973	1973		N		N
03288500	CAVE CR NR FORT SPRING, KY	380115	0843538	067	2.53	1968	1968		N		N
03289100	STEELES RUN AT OLD FRANKFORT RD AT FAYWOOD, KY	380613	0843740	067	6.67	1967	1968		N		N
03289200	TOWN BRANCH AT YARNALLTON RD AT YARNALLTON, KY	380613	0843517	067		1967	1968		N		N
03289300	SO ELKHORN CR NR MIDWAY, KY	380827	0843843	105	105.00	1981	1983	N	N	N	N
03290420	SIX MILE NR DEFOE, KY	382239	0850034	103	42.60	1973	1973		N		N
03290490	SIX MILE CK NR LOCKPORT, KY	382551	0850020	103	76.50	1973	1974		N		N
03290675	DRENNON CK AT DRENNON SP, KY	383047	0850252	103	82.50	1973	1974		N		N
03291270	EAGLE CR NR HOLBROOK, KY	383811	0844221	081	258.00	1973	1975		N		N
03291490	TEN MILE CR NR FOLSOM, KY	384253	0844458	081	68.40	1973	1973		N		N
03291500	EAGLE CR AT GLENCOE, KY	384218	0844926	187	437.00	1948	1979		N	N	N
03291700	LITTLE KY R NR BEDFORD, KY	383328	0851634	223	73.20	1970	1972		N		N
03292467	HARRODS CR NR SKYLIGHT, KY	382315	0853127	185	60.30	1974	1975		N		N
03292494	OHIO R AT WATER SUPPLY INTAKE AT LOUISVILLE, KY	381652	0854208	111		1970	1970				N
03292500	SO FK BEARGRASS CR AT LOUISVILLE, KY	381239	0854207	111	17.20	1970	1979		N		N
03293000	M FK BEARGRASS CR AT LOUISVILLE, KY	381414	0853953	111	18.90	1970	1979		N		N
03924500	OHIO R AT LOUISVILLE, KY	381649	0854757	111	91170.00	1968	1983		N	N	N
03294600	OHIO R AT KOSMOSDALE, KY	380205	0855451	111	91200.00	1970	1970				N
03295000	SALT R NR HARRODSBURG, KY	374526	0845223	167	41.40	1970	1972		N		N
03295500	SALT R NR VAN BUREN, KY	375806	0850803	005	196.00	1970	1979		N		N
03295610	SALT R AT TAYLORSVILLE, KY	380144	0852038	215	359.00	1970	1972		N		N
03295800	BRASHEARS CR NR FINCHVILLE, KY	380820	0851746	211	147.00	1970	1972		N		N
03295900	BRASHEARS CR AT TAYLORSVILLE, KY	380149	0852105	215	262.00	1973	1975		N		N
03296000	PLUM CRK SUBWATER SHED N 4 NR SIMPSONVILLE, KY	381027	0852205	211	1.55	1953	1964			N	
03297500	PLUM CR AT WATERFORD, KY	380305	0852555	215	31.80	1953	1961		N	N	N
03297700	COX CR NR HIGHGROVE, KY	375824	0853233	029	95.80	1970	1972		N		N
03297845	FLOYDS FK NR CRESTWOOD, KY	381755	0852536	211	46.70	1979	1983	N	N	N	N
03298390	FLOYDS FK NR GAP IN KNOB, KY	380204	0853933	029	259.00	1973	1975		N		N
03298760	N ROLLING FK AT BRADSFORDVILLE, KY	373022	0850834	155	95.70	1973	1975		N		N
03299000	ROLLING FK NR LEBANON, KY	372950	0851926	155	239.00	1970	1980		N		N
03300000	BEECH FK NR SPRINGFIELD, KY	374215	0850845	229	85.90	1970	1972		N		N

DISCONTINUED WATER-QUALITY RECORDS

STATION NUMBER	STATION NAME AND LOCATION	LATI- TUDE	LONGI- TUDE	COU NTY	DRAINAGE AREA	QW BEGIN YEAR	QW END YEAR	BIO. AC- TIVE STA- TUS	PHY. AC- TIVE STA- TUS	SED. AC- TIVE STA- TUS	CHEM ICAL AC- TIVE STA- TUS
03300300	CHAPLIN R AT SHARPSVILLE, KY	375128	0850401	229	140.00	1970	1972		N		N
03300400	BEECH FK AT MAUD, KY	374958	0851746	179	436.00	1979	1983	N	N	N	N
03300498	CARTWRIGHT CR AT FREDRICKTOWN, KY	374545	0851929	229	82.30	1973	1975		N		N
03301000	BEECH FK AT BARDSTOWN, KY	374749	0852851	179	669.00	1962	1972		N		N
03301500	ROLLING FK NR BOSTON, KY	374602	0854214	179	1299.00	1948	1979		N		N
03302000	POND CR NR LOUISVILLE, KY	380711	0854745	111	64.00	1962	1979		N		N
03302060	SALT R AT MOUTH NR LOUISVILLE, KY	380004	0855632	111		1970	1970				N
03302080	OTTER CR NR VINE GROVE, KY	374722	0855919	093		1970	1971		N		N
03302100	OTTER CR AT GRAHAMTON, KY	375406	0860132	163	88.40	1970	1972		N		N
03302150	DOE RUN NR BRANDENBURG STATION, KY	375728	0860718	163	52.70	1970	1972		N		N
03303205	SINKING CR NR LODIBURG, KY	375206	0862316	027	125.00	1971	1971		N		N
03303210	SINKING CR AT SAMPLE, KY	375342	0862905	027	222.00	1970	1970		N		N
03303220	BEECH FK NR CLOVERPORT, KY	374549	0863349	027		1980	1982		N	N	N
03303230	TAR FK NR CLOVERPORT, KY	374627	0863756	027		1980	1982		N	N	N
03303447	BLACKFORD CR NR MACEO, KY	375219	0865401	059		1980	1982		N	N	N
03303450	BLACKFORD CR NR MACEO, KY	375356	0865911	091	111.00	1973	1975		N		N
03303490	PUP CR NR MACEO, KY	375030	0865845	059		1980	1982		N	N	N
03303500	OHIO R AT OWENSBORO, KY	374642	0870632	059	97200.00	1970	1970				N
03305000	GREEN R NR MCKINNEY, KY	372519	0844501	137	22.40	1970	1972		N		N
03305660	GREEN R NR DUNNVILLE, KY	371313	0845912	045	221.00	1973	1975		N		N
03305800	GREEN R AT NEATSVILLE, KY	371130	0850744	001	399.00	1959	1972		N		N
03305865	CASEY CR AT CASEY CR, KY	371757	0850900	001	74.70	1973	1975		N		N
03306000	GREEN R NR CAMPBELLSVILLE, KY	371425	0852050	217	682.00	1962	1983		N		
03306500	GREEN R AT GREENSBURG, KY	371513	0853011	087	736.00	1948	1959		N		
03307300	BIG PITMAN CR NR GREENSBURG, KY	371623	0853314	087		1966	1966		N		N
03307800	LITTLE BARREN R NR MONROE, KY	371335	0854039	087	244.00	1960	1972		N		N
03308950	ECHO R OUTLET AT MAMMOTH CAVE, KY	371045	0860630	061		1974	1974		N		N
03309000	GREEN R AT MAMMOTH CAVE, KY	371043	0860646	061	1983.00	1958	1974		N		N
03309100	WET PRONG BUFFALO CR NR MAMMOTH CAVE, KY	371347	0861024	061	2.26	1962	1974		N	N	N
03309600	MCDOUGAL CR AT HODGENVILLE, KY	373429	0854338	123		1970	1970		N		N
03310000	NO FK NOLIN R AT HODGENVILLE, KY	373433	0854425	123	36.40	1970	1972		N		N
03310030	NO FK NOLIN R NR EAGLE MILLS, KY	373332	0854718	123		1970	1979		N		N
03310100	NOLIN R AT EAGLE MILLS, KY	373355	0855011	123		1970	1972		N		N
03310117	MIDDLE CR AB NEELY BR, KY	373850	0854535	093		1971	1971		N		N
03310120	MIDDLE CR NR TONIEVILLE, KY	373726	0854800	093		1970	1972		N		N
03310130	MIDDLE CR AT EAGLE MILLS, KY	373422	0854926	093		1971	1972		N		N
03310160	NOLIN R NR GLENDALE, KY	373503	0855459	093	185.00	1971	1975		N		N
03310210	VALLEY CR AT ELIZABETHTOWN, KY	374049	0855234	093		1970	1973		N		N
03310225	VALLEY CR AT GAITHERS, KY	373940	0855409	093		1971	1973		N		N
03310250	W RHUDES CR NR CECILIA, KY	373756	0855532	093		1970	1972		N		N
03310270	VALLEY CR NR GLENDALE, KY	373641	0855550	093	90.10	1960	1975		N		N
03310273	NOLIN R NR STAR MILLS, KY	373553	0855715	093		1971	1972		N		N
03310500	NOLIN R AT WAX, KY	372043	0860721	085	600.00	1949	1961		N	N	N
03310550	ROCK CR NR CLARKSON, KY	372602	0860928	085		1980	1982		N	N	N
03310600	DOG CR NR MAMMOTH CAVE, KY	371647	0860705	061	8.12	1961	1974		N		N
03311100	BYLEW CR NR MAMMOTH CAVE, KY	371540	0861307	061	5.16	1965	1974		N		N
03311500	GREEN R AT LOCK 6, AT BROWNSVILLE, KY	371225	0861540	061	2762.00	1978	1982		N		
03311600	BEAVERDAM CR AT RHODA, KY	370918	0861335	061	10.90	1965	1979		N		N
03312040	BEAR CR NR BEE SPRING, KY	371725	0861935	061		1980	1982		N	N	N
03312070	SUNFISH CR NR BEE SPRING, KY	371723	0862236	061		1980	1982		N	N	N
03312100	BEAR CR NR ROUNDHILL, KY	371456	0862140	061	137.00	1960	1972		N		N
03312120	BIG REEDY CR NR ROUNDHILL, KY	371418	0862623	031		1980	1982		N	N	N
03312130	LITTLE REEDY CR NR ROUNDHILL, KY	371445	0862918	031		1980	1982		N	N	N
03312400	BARREN R AT ACKERSVILLE, KY	364028	0855714	171	298.00	1970	1972		N		N
03312680	SKAGGS CR NR GLASGOW, KY	365500	0855504	009	141.00	1970	1972		N		N
03313570	BAYS FK AT CLAYPOOL, KY	365415	0861406	227	80.90	1960	1968		N		N
03313590	UNNAMED NON-CONTRIB STREAM AT GREENHILL, KY	365347	0861828	227		1968	1968		N		N
03313900	TRAMMEL CR NR SCOTTSVILLE, KY	364354	0861623	003	93.40	1970	1972		N		N
03314000	DRAKES CR NR ALVATON, KY	365343	0862250	227	478.00	1968	1972		N		N
03314595	UNNAMED NON-CONTRIB STREAM AT THREE SPRINGS, KY	365501	0862615	227		1968	1968		N		N
03314610	JENNINGS CR NR LOST R, KY	365816	0862910	227		1968	1968		N		N
03314650	JENNINGS CR AT US 231 AT BOWLING GREEN, KY	365922	0862933	227		1968	1968		N		N
03314680	JENNINGS [illegible] LOST R OUTLET AT BOWLING GREEN	365944	0862855	227		1968	1968		N		N
03314700	JENNINGS CR AT BARREN R RD NR BOWLING GREEN, KY	370034	0862818	227		1968	1968		N		N
03315300	GASPER R AT HADLEY, KY	370312	0863547	227	190.00	1960	1972		N		N
03315510	WELCH CR NR ABERDEEN, KY	371542	0863544	031		1980	1982		N	N	N
03315590	INDIAN CAMP CR NR MORGANTOWN, KY	371811	0864139	031		1980	1982		N	N	N
03315600	E PRONG INDIAN CAMP CR NR MORGANTOWN, KY	371725	0864023	031		1980	1982		N	N	N
03315810	MUDDY CR AT DUNBAR, KY	371101	0864624	031	94 30	1960	1982		N	N	N
03315830	PANTHER CR NR ROCHESTER, KY	371319	0865124	031		1980	1982		N	N	N
03316000	MUD R NR LEWISBURG, KY	370015	0865426	141	90.50	1960	1972		N		N
03316200	WOLFLICK CR NR LEWISBURG, KY	370108	0865733	141	116.00	1970	1972		N		N
03316300	ROCKY CR NR PENROD, KY	370757	0865838	177		1980	1982		N	N	N
03316500	GREEN R AT PARADISE, KY	371553	0865843	177	6183.00	1978	1982		N		
03316640	POND CR NR MARTWICK, KY	371801	0870016	177	125.00	1972	1982		N	N	N
03316660	LEWIS CR AT ROCKPORT, KY	372051	0865902	183		1980	1982		N	N	N

STATION NUMBER	STATION NAME AND LOCATION	LATI- TUDE	LONGI- TUDE	COU NTY	DRAINAGE AREA	QW BEGIN YEAR	QW END YEAR	BIO. AC- TIVE STA- TUS	PHY. AC- TIVE STA- TUS	SED. AC- TIVE STA- TUS	CHEM ICAL AC- TIVE STA- TUS
03316885	MEETING CR NR BIG CLIFTY, KY	373434	0861259	085		1980	1982		N	N	N
03317500	NO FK ROUGH R NR WESTVIEW, KY	374132	0862329	027	42.00	1970	1972		N		N
03318010	ROUGH R AT ROUGH R DAM NR FALLS OF ROUGH, KY	373719	0863015	085	454.00	1962	1983		N		
03318300	ROCK LICK CR NR FALLS OF ROUGH, KY	373750	0863332	027		1980	1982		N	N	N
03318600	SHORT CR NR FALLS OF ROUGH, KY	373120	0863128	085		1980	1982		N	N	N
03318700	SO FK CANEY CR AT CANEYVILLE, KY	372526	0862858	085		1980	1982		N	N	N
03319510	ADAMS FK NR FORDSVILLE, KY	373742	0864148	183		1980	1982		N	N	N
03319530	W FK ADAMS FK NR FORDSVILLE, KY	373744	0864339	183		1980	1982		N	N	N
03319570	HALLS CR NR DUNDEE, KY	373158	0864921	183		1980	1982		N	N	N
03319500	ROUGH R AT HARTFORD, KY	372710	0865438	183		1966	1972		N		N
03319615	MUDDY CR NR BEAVER DAM, KY	372513	0865055	183		1980	1982		N	N	N
03319620	THREELICK CR NR BEAVER DAM, KY	372502	0865103	183		1980	1982		N	N	N
03319700	BARNETT CR NR HARTFORD, KY	373212	0865834	183		1980	1982		N	N	N
03319750	NO FK BARNETT CR NR HARTFORD, KY	373223	0870039	183		1980	1982		N	N	N
03319885	GREEN R AT LIVERMORE, KY	372908	0870811	149	7512.00	1948	1975		N		
03319925	BUCK CR NR LIVERMORE, KY	373031	0870827	149		1980	1982		N	N	N
03320075	LONG FALLS CR NR RUMSEY, KY	373253	0871639	149		1980	1982		N	N	N
03320400	LONG CR NR KIRKMANSVILLE, KY	370616	0871334	177		1980	1982		N	N	N
03320700	W FK POND R NR APEX, KY	370740	0872217	047		1980	1982		N	N	N
03320740	MCFARLAN CR NR WHITE PLAINS, KY	370725	0872332	047		1980	1982		N	N	N
03321035	DRAKES CR NR WHITE PLAINS, KY	371157	0872453	107	52.50	1979	1982		N	N	N
03321050	FLAT CR NR MADISONVILLE, KY	371511	0872650	107		1980	1982		N	N	N
03321100	POND R NR SACRAMENTO, KY	372341	0871819	107	523.00	1959	1973		N		N
03321120	POND R NR VANDETTA, KY	372630	0872110	149		1980	1982		N	N	N
03321150	OTTER CR NR HANSON, KY	372913	0872248	107		1980	1982		N	N	N
03321160	CYPRESS CR NR MIDLAND, KY	371730	0871240	177		1980	1982		N	N	N
03321170	CYPRESS CR NR CENTRAL CITY, KY	371810	0871150	177		1980	1982		N	N	N
03321180	LITTLE CYPRESS CR AT CENTRAL CITY, KY	371743	0870828	177		1980	1982		N	N	N
03321215	CYPRESS CR NR RUMSEY, KY	373032	0871900	149	149.00	1973	1975		N		N
03321290	DEER CR NR SEBREE, KY	373421	0873109	233	122.00	1974	1975		N		N
03321400	NO FK PANTHER CR NR MASONVILLE, KY	374219	0870303	059		1980	1982		N	N	N
03321410	NO FK PANTHER CR NR MASONVILLE, KY	374205	0870354	059	88.30	1970	1971		N		N
03321450	PANTHER CR NR CURDSVILLE, KY	374331	0871649	059	344.00	1973	1980		N		N
03321455	LICK CR NR BLUFF CITY, KY	374809	0872634	101		1980	1982		N	N	N
03321455	KNOBLICK CR NR CURDSVILLE, KY	374243	0872000	059		1980	1982		N	N	N
03321500	GREEN R AT LOCK AND DAM 1 AT SPOTTSVILLE, KY	375130	0872435	101	9181.00	1955	1962		N		N
03322180	CANOE CR NR HENDERSON, KY	374711	0873530	101	56.00	1979	1982		N	N	N
03322370	CASEY CR NR WAVERLY, KY	374007	0874707	225		1980	1982		N	N	N
03322400	HIGHLAND CR NR UNIONTOWN, KY	374551	0874957	225	166.00	1970	1972		N		N
03322420	OHIO R NR UNIONTOWN DAM, KY	374800	0875900	225		1975	1975		N		N
03382570	EAGLE CR NR MORGANFIELD, KY	373916	0875800	225		1980	1982		N	N	N
03382600	TRADEWATER R AT POOLS MILL BR NR DAWSON SP, KY	370430	0873446	047	60.40	1966	1982		N	N	N
03382650	CASTLEBERRY CR NR DAWSON SPRINGS, KY	370522	0873512	107		1980	1982		N	N	N
03382680	TRADEWATER R AT COLLINS BRDG, NR DAWSON SP, KY	370700	0873720	047		1965	1967		N		N
03382685	TRADEWATER R AT MURPHY FK NR DAWSON SP, KY	370849	0873900	107	94.10	1966	1975		N		N
03382700	BUFFALO CK AT ST HWY 1338 NR DAWSON SP, KY	370829	0873654	107		1965	1969		N		
03382720	BUFFALO CR NR DAWSON SP, KY	370829	0873654	107	12.70	1965	1967		N		N
03382835	COPPERAS CR AT HIGHWAY BRIDGE NR ILSLEY, KY	371208	0873726	107		1966	1967		N		N
03382855	CANY CR AT MOUTH NR DAWSON SPRINGS, KY	370949	0873947	107		1965	1967		N		N
03382870	TRADEWATER R AT ST HWY 109 AT DAWSON SP, KY	370903	0874029	107	143.00	1966	1967		N		N
03382890	PINY CR BL LK BESHEAR D NR DAWSON SP, KY	370853	0874055	033		1966	1967		N		N
03383000	TRADEWATER R AT OLNEY, KY	371326	0874653	033	255.00	1949	1983	N	N	N	N
03383500	TRADEWATER R NR DALTON KY	371628	0874748	033	283.00	1965	1966		N		N
03383650	DONALDSON CR NR FRYER, KY	371535	0875420	033		1980	1982		N	N	N
03383700	DONALDSON CR AT BR ON HWY 293 NR DALTON, KY	371703	0874837	033		1966	1966		N		N
03383710	TRADEWATER R AT ST HWY 293 NR DALTON, KY	371900	0874840	033		1965	1966		N		N
03383755	CLEAR CR AT HWY 70 BR NR RICHLAND, KY	371746	0873418	107	17.00	1966	1982		N	N	N
03383770	RICHLAND CR AB TR NO. 1 NR ILSLEY, KY	371334	0873553	107		1966	1967		N		N
03383775	UNNAMED TR NO. 1 TO RICHLAND CR NR ILSLEY, KY	371331	0873553	107		1966	1967		N		N
03383780	UNNAMED TR NO. 2 TO RICHLAND CR NR ILSLEY, KY	371339	0873529	107		1966	1967		N		N
03383800	RICHLAND CK AT RICHLAND, KY	371626	0873615	107		1966	1966		N		
03383901	UNNAMED TR TO CLEAR CR NR BEULAH, KY	371649	0874111	107		1966	1966		N		N
03384035	LICK CR NR RABBIT RIDGE, KY	371815	0874358	107		1980	1982		N	N	N
03384050	CLEAR CR AT BRIDGE ON ST HWY 293 NR PROVIDENCE	372033	0874800	107	197.00	1966	1967		N		N
03384060	TRADEWATER R AT DAM NR PROVIDENCE, KY	372242	0874805	055		1965	1966		N		N
03384072	TRADEWATER R AT BRIDGE BL DAM NR PROVIDENCE, KY	372251	0874801	055		1966	1967		N		N
03384100	TRADEWATER R NR PROVIDENCE, KY	372348	0875042	055	605.00	1965	1972		N		N
03384103	TRADEWATER R NR BLACKFORD, KY	372356	0875417	055		1980	1980		N	N	N
03384106	PINEY CR NR SHADY GROVE, KY	372131	0875528	055		1980	1982		N	N	N
03384133	UNNAMED TR TO SLOVER CR NR PROVIDENCE, KY	372617	0874705	233		1968	1968				N
03384136	SLOVER CR NR CLAY, KY	372652	0874709	233		1969	1969		N		N
03384138	UNNAMED TR TO SLOVER CR NR CLAY, KY	372628	0874646	233		1969	1969		N		N
03384140	UNNAMED TR TO SLOVER CR NR CLAY, KY	372652	0874710	233		1969	1979		N		N
03384145	FREDRICKS DITCH NR CLAY, KY	372721	0874711	233		1969	1969		N		N
03384150	CRABORCHARD CK NR CLAY, KY	372744	0874646	233		1965	1982		N	N	N
03384151	CRABORCHARD CR NR CLAY, KY	372717	0874823	233		1969	1969		N		N
03384152	CRABORCHARD CR AT CLAY, KY	372738	0874915	233		1966	1966		N		N
03384154	CRABORCHARD CR AT CLAY, KY	372737	0874922	233	86.60	1969	1972		N	N	N

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DISCONTINUED WATER-QUALITY RECORDS

STATION NUMBER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	COUNTY	DRAINAGE AREA	QW BEGIN YEAR	QW END YEAR	BIO. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE STATUS
03384158	CANEY FK NR CLAY, KY	373127	0874929	23[illegible]		1980	1982		N	N	N
03384180	TRADEWATER R NR SULLIVAN, KY	372846	0875713	055	861.19	1975	1977		N	N	N
03384200	SMITH DITCH NR STURGIS, KY	373254	0875525	225		1980	1982		N	N	N
03400480	LOONEY CR NR CLUTTS, KY	365817	0825806	095		1980	1982		N	N	N
03400650	CLOVER FK NR SHIELDS, KY	365348	0830825	095		198[illegible]	1982		N	N	N
03400700	CLOVER FK AT EVARTS, KY	365156	0831137	095	82.40	196[illegible]	1972		N		N
03400796	CRANE CR NR SMITH, KY	364451	0831550	095	1.63	1978	1980		N		
03401290	BROWNICE CR NR OAKS, KY	364318	0833332	013		1980	1982		N	N	N
03402400	CLEAR CR NR PINEVILLE, KY	364342	0834428	013		1980	1982		N	N	N
03402450	LITTLE CLEAR CR NR PINEVILLE, KY	364317	0834327	013		1980	1982		N	N	N
03402800	STRAIGHT CR NR KETTLE ISLAND, KY	364706	0833609	013		1980	1982		N	N	N
03402830	LEFT FK STRAIGHT CR NR CARY, KY	364754	0833936	013		1980	1982		N	N	N
03403100	M FK STINKING CR NR WALKER, KY	365314	0834225	121		1980	1982		N	N	N
03403150	ROAD FK CR NR BARNYARD, KY	365402	0834441	121		1980	1982		N	N	N
03403550	LITTLE INDIAN CR NR PERMON, KY	364940	0835821	121		1980	1982		N	N	N
03403590	FOURMILE BRANCH NR BRYANTS STORE, KY	364648	0835605	121		1980	1982		N	N	N
03404100	WATTS CR NR WOFFORD, KY	364708	0840807	235		1980	1982		N	N	N
03404200	JELLICO CR NR WILLIAMSBURG, KY	364056	0841520	235	103.00	1979	1982		N	N	N
03404350	MARSH CR NR DUCKRUN, KY	364255	0842118	147		1980	1982		N	N	N
03404650	TR TO LAUREL R NR LESBAS, KY	370334	0835956	125		1980	1982		N	N	N
03404800	TR TO LAUREL R NR PINE GROVE, KY	370347	0840447	125		1980	1982		N	N	N
03404820	LAUREL R AT MUNICIPAL DAM NR CORBIN, KY	365813	0840711	125	140.00	1977	1983		N		
03404900	LYNN CAMP CR AT CORBIN, KY	365705	0840537	235	53.80	1973	1983		N		
03405000	LAUREL R AT CORBIN, KY	365809	0840738	235	201.00	1949	1973		N		N
03405550	CRAIG CR NR HIGHTOP, KY	370108	0841049	125		1980	1982		N	N	N
03405600	SO FK TO ROCKCASTLE R NR CRAWFORD, KY	371217	0835642	125		1980	1982		N	N	N
03405700	SO FK ROCKCASTLE R NR PEOPLES, KY	371605	0840302	109	95.10	1961	1972		N		N
03405730	POND CR NR PEOPLES, KY	371708	0840313	109		1980	1982		N	N	N
03405780	LAUREL FK NR MCKEE, KY	372247	0835921	109		1980	1982		N	N	N
03405800	INDIAN CR NR MURLEY, KY	372445	0840215	109		1980	1982		N	N	N
03405900	ROUNDSTONE CR AT LIVINGSTON, KY	371755	0841250	203	144.00	1960	1972		N		N
03406000	WOOD CR NR LONDON, KY	370940	0840643	125	3.89	1976	1980	N	N		
03407100	CANE BRANCH NR PARKERS LAKE, KY	365205	0842657	147	.67	1955	1974		N	N	N
03407200	W FK CANE BR NR PARKERS LAKE, KY	365149	0842708	147	.26	1957	1973		N	Y	N
03407300	HELTON BRANCH AT GREENWOOD, KY	365307	0842855	147	.85	1955	1973		N	N	N
03407640	BUCK CR AT DYKES, KY	370336	0842535	199	253.00	1973	1975		N		N
03410530	ROARING PAUNCH CR NR BARTHELL, KY	364009	0842939	147		1980	1982		N	N	N
03410560	ROCK CR AT WHITE OAK JUNCTION, KY	364210	0843544	147		1980	1982		N	N	N
03410600	SO FK CUMBERLAND R NR YAMACRAW, KY	364332	0843238	147	1083.00	1948	1976		N		
03410700	WOLF CR AT WOLF CR, KY	36[illegible]356	0843334	147		1980	1982		N	N	N
03410900	LITTLE SO FK CUMBERLAND R NR OIL VALLEY, KY	36[illegible]	0844020	147	98.20	1970	1972		N		N
03411000	SO FK CUMBERLAND R AT NEVELSVILLE, KY	365[illegible]	0843500	147	1271.00	1960	1975		N		
03411100	SINKING CR NR GREGORY, KY	36502[illegible]	0844125	231		1980	1982		N	N	N
03411250	PUCKETT CR NR PATHFK, KY	364519	0832745	095		1980	1982		N	N	N
03412500	PITMAN CR AT SOMERSET, KY	370701	0843531	199	31.30	1970	1972		N		N
03412700	FISHING CR NR HOGUE, KY	370950	0844232	199	59.80	1970	1972		N		N
03414000	CUMBERLAND R NR ROWENA, KY	365302	0850822	207	5790.00	1965	1979		N		N
03414080	CROCUS CR NR BAKERTON, KY	365232	0852039	057	108.00	1973	1975		N		N
03414110	CUMBERLAND R NR BURKESVILLE, KY	364446	0852221	057	6050.00	1948	1979		N		N
03435100	RED R NR ADAIRVILLE, KY	364204	0865142	181	229.00	1970	1972		N		N
03435140	WHIPPOORWILL CR NR CLAYMOUR, KY	365229	0870520	219	20.80	1978	1982		N		
03435265	WHIPPOORWILLCR AT DOT, KY	364017	0865756	141	115.00	1973	1975		N		N
03435380	ELK FK NR HADENSVILLE, KY	363908	0870517	219	86.50	1973	1975		N		N
03436190	W FK RED R NR SAINT ELMO, KY	363905	0872239	047	162.00	1973	1975		N		N
03437500	SO FK LITTLE R AT HOPKINSVILLE, KY	365022	0872852	047	46.50	1949	1975		N		
03438000	LITTLE R NR CADIZ, KY	364640	0874318	221	244.00	1958	1973		N	N	N
03438070	MUDDY FK LITTLE R NR CERULEAN, KY	365840	0874236	221	30.50	1978	1982		N		
03438170	EDDY CR NR LAMASCO, KY	370159	0875626	033	71.70	1970	1974		N		N
03438190	BARKLEY-KENTUCKY CANAL NR GRAND RIVERS, KY	365923	0881317	143		1978	1982		N		
03438470	LIVINGSTON CR NR DYCUSBURG, KY	370835	0880948	055	112.00	1970	1972		N		N
03609500	TENNESSEE R NR PADUCAH, KY	370111	0881650	157	40200.00	1951	1973		N		N
03610000	CLARKS R AT MURRAY, KY	363534	0881800	035	89.10	1970	1972		N		N
03610200	CLARKS R AT ALMO, KY	364130	0881625	035	134.00	1982	1983	N	N	N	N
03610500	CLARKS R NR BENTON, KY	365224	0882048	157	227.00	1948	1961		N		N
03610545	W FK CLARKS R NR BREWERS, KY	3646[illegible]8	0882803	157	68.70	1970	1981		N	N	N
03610585	W FK CLARKS R AT KALER, KY	36530[illegible]	0883311	083	150.00	1973	1975		N		N
03613000	HUMPHREY CR AT LACENTER, KY	3704[illegible]	0885721	007	44.20	1970	1972		N		N
07023000	MAYFIELD CR AT LOVELACEVILLE, KY	365709	0884930	039	212.00	1960	1972		N		N
07024000	BAYOU DE CHIEN NR CLINTON, KY	363743	0885750	105	68.7	1954	1983	N	N	N	N
07023700	OBION CR NR ARLINGTON, KY	364530	0890013	105	203.00	1970	1972		N		N
07024070	MISSISSIPPI R AT HICKMAN, KY	363422	0891156	075	922500.00	1969	1970	N	N		N

N Eliminated Activity

INDEX

Page

Access to WATSTORE Data 25
Accuracy of the records 17-18
Acre-foot, definition of 25
Adams Fork, West Fork near Fordsville 289
Adenosine triphosphate, definition of 25
Agencies other than U.S. Geological Survey, records collected by 18
Algae, definition of 25
Algal growth potential, definition of 25
Almo, Clarks River at 279,315
Apex, Pond River near 144,311
Aquifer, definition of 26
Artesian, definition of 26
Ash mass, definition of 27

Bacon Creek, near Priceville 131,308
  Tributary near Upton 289
Bacteria, definition of 26
Balls Branch Tributary near Danville 287
Barbourville, Cumberland River at 202-205
Barkley-Kentucky Canal near Grand Rivers 273,315
Barren River, at Bowling Green 137,289,309
  near Finney 135,309
  Tributary near Bowling Green 137
Bayou de Chien basin, crest-stage partial-record stations for 285
Bayou de Chien, near Clinton 285,316
    South Fork, Tributary at Water Valley 291
Bear Creek near Burkesville 290
Beargrass Creek, Middle Fork, at Cannons Lane, at Louisville 102-104
Beaverdam Creek near Corydon 148
Beaverdam Creek (tributary to Green River), at Rhoda 134,308
Beckwith Branch Tributary near Grayson 286
Bed load, definition of 33
Bed load discharge, definition of 33
Bed material, definition of 26
Beech Fork, at Bardstown 288
  at Maud 113,305
Beech Grove, Green River near 145-146
Bennett's Fork at Middlesboro 190-193
Big Creek, Red Bird River near 85,300
Big Sandy River basin, crest-stage partial-record stations for 286
  gaging-station records in 45-53
  miscellaneous water-quality analyses in 317-318
Big Sandy River, at Louisa 52-53
  near Burnaugh 318
Bill D Branch near Kite 286
Billows, Rockcastle River at 224,314
Biochemical Oxygen, definition of 26
Biomass, definition of 27
Blue-green Algae, definition of 31
Booneville, South Fork Kentucky River at 87,300
Boston, Rolling Fork near 114,306
Bottom Fork near Mayking 287
Bottom Material, definition of 27
Bowling Green, Barren River at 137,309
  Lost River Blue Hole near 138-139
Bradshaw Creek near Shelbyville 288
Brashears Creek at Taylorsville 106,304
Brier Creek Tributary near Ollie 289
Brownsville, Green River at lock 6, at 133,308
Buck Creek near Shopville 225,314
Bull Creek near Hyden 287
Burnaugh, Big Sandy River near 318
Butler, Licking River at 73-74

Cabin Creek basin, crest-stage partial-record stations for 286
  gaging-station records in 62
Cabin Creek near Tollesboro 62,295
Cadiz, Little River near 272,315
Calhoun, Green River at lock 2, at 143,310
Campbellsville, Green River near 122-123,306
Canal, Barkley-Kentucky near Grand Rivers 273,315
Cane Branch, near Parkers Lake 290
  West Fork, near Parkers Lake 290
Caney Creek near Horse Branch 142,310
Caney Fork near Gulnare 286
Cannelton Dam, Ohio River at 118-121
Carpenter Creek Tributary near Hustonville 288

Page

Carr Fork near Sassafras 79,296
Catawba, Licking River at 72,297
Cells/volume, definition of 27
Chemical Oxygen Demand, definition of 27
Chestnut Creek near Benton 290
Chlorophyll, definition of 27
Clarks River, at Almo 279,315
  Tributary, near Reidland 290
Clay City, Red River at 90,301
Claymour, Whippoorwill Creek near 271,315
Clear Creek Tributary (Kentucky River Basin), near West Irvine 287
Clear Fork at Saxton 206,313
  near Robbins, TN 237-247
Clinton, Bayou de Chien near 285
Clover Fork, at Evarts 289
  at Harlan 185-188,312
Collection and computation of data (surface water) 13-14
Collection and examination of data (quality water) 19-20
Collection of data (ground water) 23
Color Unit, definition of 27
Columbia, Russell Creek near 124,307
Contents, definition of 27
Control, definition of 27
Control Structure, definition of 28
Cooperation 2
Corydon, Beaverdam Creek near 148
Corbin, Laurel River at Municipal Dam near 222
  Lynn Camp Creek at 223,314
Craigs Creek basin, crest-stage partial-record stations for 287
Craigs Creek Tributary near Warsaw 287
Crestwood, Floyds Fork near 107,304
Cubic feet per second, definition of 28
Cubic feet per second per square mile, definition of 28
Cumberland Falls, Cumberland River at 211,221
Cumberland, Poor Fork at 311
Cumberland River, at Barbourville 202-205
  at Cumberland Falls 211-221,313
  at Williamsburg 207-210, 313
  near Grand Rivers 274-276
  near Harlan 189,312
  near Pineville 198-201
  near Rowena 270
  South Fork, at Leatherwood Ford, TN 248-258
    near Stearns 259-269
Cumberland River basin, crest-stage partial-record stations for 289-290
  gaging-station records in 150-276
Cutshin Creek at Wooton 83,299
Cynthiana, South Fork Licking River at 71,297

Danville, Dix River near 92,302
Deer Creek Tributary, East Fork, near Onton 289
Definition of terms 25-37
Diatoms, definition of 32
Discharge, definition of 28
Discontinued records, gaging station 366-370
  water-quality 371-376
Dissolved, definition of 28
Dissolved-solids concentration, definition of 28
Dix River near Danville 92,302
Donaldson Creek, West Fork, near Fredonia 289
Downstream order system 11
Drainage area, definition of 28
Drainage basin, definition of 28
Drakes Creek, West Fork, near Franklin 309
Dry mass, definition of 27
Dryden Creek, North Fork, Tributary near Confederate 290

Eagle Creek at Glencoe 288
Elbow Creek Tributary near Canton 290
Elk Spring Creek near Spann 290
Elkhorn City, Russell Fork at 47,292
Elm Lick Creek near Clermont 288
Evansville, IN, Ohio River at 147

Page

Explanation of the records.......... 10-25
Explanation of ground water level record..... 10-12
Explanation of stage and water discharge records.......... 13-18
Explanation of surface water-quality record.......... 18-23

Falls of Rough, Rough River at.......... 141,310
Fallsburg, East Fork, Little Sandy River near.......... 56,294
Farmers, Licking River at.......... 64-66,295
Fecal coliform bacteria, definition of....... 26
Fecal streptococcal bacteria, definition of.. 26
Finney, Barren River near.......... 135,309
Fisherville, Floyds Fork at.......... 108,305
Flat Creek near Frankfort.......... 288
Floyds Fork, at Fisherville.......... 108,305
  near Crestwood.......... 107,304
Fort Spring, South Elkhorn Creek at.......... 95,303
Fowlers Fork at Union.......... 287
Frankfort, Kentucky River at lock 4, at...... 94,302
Franklin, West Fork Drakes Creek near........ 136,309

Gage height, definition of.......... 28
Gaging station, definition of.......... 29
Gaging-station records, surface-water stations.......... 45-285
  discontinued.......... 366-370
Goose Creek at Manchester.......... 86,300
Grand Chain, IL, Ohio River at lock and dam 53, near.......... 282-284
Grand Rivers, Barkley-Kentucky Canal near.... 273,315
  Cumberland River near.......... 274-276
Grayson, Little Sandy River at.......... 55,293
Green algae, definition of.......... 32
Green River, at lock 2, at Calhoun.......... 143,310
  at lock 4, at Woodbury.......... 140,309
  at lock 6, at Brownsville.......... 133,308
  at Munfordville.......... 125-129,307
  near Beech Grove.......... 145-146
  near Campbellsville.......... 122-123,306
Green River basin, crest-stage partial-record stations for.......... 288-289
  gaging-station records in.......... 122-146
Greenup Dam, Ohio River at.......... 57-59
Greenup, Tygarts Creek near.......... 61,294
Ground-water, summary of hydrologic conditions.......... 6
Ground-water levels.......... 320-365
  explanation of.......... 23-25
Gum Lick Creek Tributary near Clementsville.. 288
Gunpowder Creek basin, crest-stage partial-record stations for.......... 287

Hardin County, ground-water levels in........ 320
Hardness of water, definition of.......... 29
Harlan, Clover Fork at.......... 185-188,312
  Cumberland River near.......... 189,312
Harrods Creek basin, crest-stage partial-record stations for.......... 288
  gaging-station records in.......... 101
Harrods Creek, near La Grange.......... 101,303
  South Fork, near Crestwood.......... 288
Haysi, VA, Russell Fork at.......... 46
Hazard, North Fork Kentucky River at.......... 80,298
Hazel Green, Red River near.......... 89,301
Heidelberg, Kentucky River at lock 14, at.......... 88,300
Helton Branch at Greenwood.......... 290
Highland Creek basin, gaging-station records in.......... 148
Horse Branch, Caney Creek near.......... 142,310
Hyden, Middle Fork Kentucky River near....... 82,299
Hydrologic benchmark network, definition of.......... 29
Hydrologic conditions, summary of.......... 2-6
Hydrologic unit, definition of.......... 29

Indian Creek near Owingsville.......... 286
Indian Run Tributary near Tollesboro.......... 286
Instantaneous discharge, definition of....... 28
Introduction.......... 1
Irvin Branch near Salem.......... 288

Jacks Branch near Morehead.......... 286

Page

Jackson, North Fork Kentucky River at........ 81,298
Jeff Branch near Sligo.......... 288
Jefferson County, ground-water level in...... 321-365
Johns Creek, near Meta.......... 49,292
  near Van Lear.......... 50,293
Johnson Creek Tributary near Fairview........ 286

Kentucky River, at lock 2, at Lockport.......... 97-100
  at lock 4, at Frankfort.......... 94,302
  at lock 6, near Salvisa.......... 93,302
  at lock 10, near Winchester.......... 91,301
  at lock 14, at Heidelberg.......... 88,300
  Middle Fork, at Tallega.......... 84,299
    near Hyden.......... 82,299
  North Fork, at Hazard.......... 80,298
    at Jackson.......... 81,298
  South Fork, at Booneville.......... 87,300
Kentucky River basin, crest-stage partial-record stations for.......... 287-288
  gaging-station records in.......... 79-100
Kyrock, Nolin River at.......... 132,308

La Grange, Harrods Creek near.......... 101,303
Lakes:
  Martins Fork Lake near Smith.......... 155-177
Land-surface datum, definition of.......... 29
Laurel River at Municipal Dam, near Corbin... 222
Latitude-Longitude System.......... 11-12
Lawrence Creek basin, crest-stage partial-record stations for.......... 286
Lawrence Creek near Maysville.......... 286
Leatherwood Ford, TN, South Fork Cumberland River at.......... 248-258
Lebanon Junction, Rolling Fork near.......... 115-116
Lebanon, Rolling Fork near.......... 112,305
Lees Creek Tributary at Mays Lick.......... 286
Leon, Little Sandy River below Grayson Dam, near.......... 54
Levels, ground-water.......... 320-365
Levisa Fork, at Louisa.......... 318
  at Paintsville.......... 51,293,317
  at Pikeville.......... 48,292,317
  below Fishtrap Dam, near Millard.......... 45,292
Lewisburg, North Fork Licking River near..... 68,296
Lick Creek (Cumberland River basin), near Canton.......... 290
Lick Creek Tributary (Mayfield Creek basin), near Kirbyton.......... 290
Licking River, at Butler.......... 73-74
  at Catawba.......... 72,297
  at Farmers.......... 64-66,295
  at McKinneysburg.......... 69,296
  near Salyersville.......... 63,295
  North Fork of, near Lewisburg.......... 68,296
  South Fork, at Cynthiana.......... 71,297
Licking River Basin, crest-stage partial-record stations for.......... 286
  gaging-station records in.......... 63-74
Little Beaver Creek near Glasgow.......... 289
Little River, near Cadiz.......... 272,314
  South Fork, at Hopkinsville.......... 290
  Tributary, near Hopkinsville..........
Little Sandy River, at Grayson.......... 55,293
  below Grayson Dam, near Leon.......... 54,293
Little Sandy River, East Fork near Fallsburg.......... 56,294
Little Sandy River basin, crest-stage partial-record stations for.......... 286
  gaging-station records in.......... 54-56
Lockport, Kentucky River at lock 2, at....... 97-100
Long Lick Creek Tributary near Axtel.......... 289
Lost River Blue Hole near Bowling Green...... 138-139
Louisa, Big Sandy River at.......... 52-53
  Levisa Fork at.......... 318
Louisville, Middle Fork Beargrass Creek at Cannons Lane.......... 102-104
  Ohio River at.......... 105
  Pond Creek near.......... 117,306
Lsd, definition of.......... 29
Lulbegrud Creek, Tributary at Westbend....... 287
Lynn Camp Creek at Corbin.......... 223,314

Manchester, Goose Creek at.......... 86,300

Page

- Map, location of observation wells in Hardin and Jefferson County........ 319
  - location of gaging stations........ 40-41
  - location of surface water-quality stations........ 42-43
- Markland Dam, Ohio River at........ 75-78
- Martins Fork above Smith........ 151-154
  - Lake at Martins Fork Dam near Smith........ 155-177
  - near Smith........ 178-184,311
- Massac Creek basin, gaging station records in........ 280
- Massac Creek near Paducah........ 280,316
- Maud, Beech Fork at........ 113,305
- Mayfield Creek basin, crest-stage partial-record station for........ 290
- McKinneysburg, Licking River at........ 69
- Mean concentration, sediment, definition of.. 33
- Mean discharge, definition of........ 28
- Measuring point, definition of........ 29
- Meta, Johns Creek near........ 49,292
- Metamorphic stage, definition of........ 29
- Methylene blue active substances, definition of........ 29
- Metropolis, IL, Ohio River at........ 281
- Micrograms per gram, definition of........ 29
- Micrograms per liter, definition of........ 29
- Middlesboro, Bennett's Fork at........ 190-193
  - Yellow Creek at........ 194-197,312
- Midway, South Elkhorn Creek near........ 96,303
- Mile Branch, near Coalton........ 286
  - near Rush........ 286
- Millard, Levisa Fork below Fishtrap Dam, near........ 45,292
- Milligrams of carbon per area or volume per unit time........ 32
- Milligrams of oxygen per area or volume per unit time........ 32
- Milligrams per liter, definition of........ 29
- Miscellaneous, temperature measurements and field determinations........ 292,316
  - water-quality analyses in the Big Sandy River Basin........ 317-318
- Morehead, North Fork Triplett Creek near..... 67,296
- Munfordville, Green River at........ 125-129,307

- National Geodetic Vertical Datum of 1929, definition of........ 30
- National stream-quality accounting network, (NASQAN), definition of........ 10,30
- National trends network, definition of........ 30
- Networks and programs, special........ 10
- New River at New River, TN........ 226-236
- NGVD, definition of........ 30
- Nolin River at Kyrock........ 132,308
  - at White Mills........ 130,307
- North Prong near Willisburg........ 288
- Numbering system for wells and miscellaneous sites........ 12

- Ohio River, at Cannelton Dam........ 118-121
  - at Evansville, IN........ 147
  - at Greenup Dam........ 57-59
  - at lock and dam 53, near Grand Chain, IL... 282-284
  - at Louisville........ 105
  - at Markland Dam........ 75-78
  - at Metropolis, IL........ 281
- Ohio River Main Stem, gaging-station records in........ 57-59,75-78, 105,118-121, 147,281-284
- Olive Hill, Tygarts Creek at........ 60,294
- Olney, Tradewater River at........ 149,311
- Order, downstream, of listing stations........ 11
- Organism, definition of........ 30
  - count/area........ 30
  - count/volume........ 30
- Other records available........ 18
- Otter Creek basin, crest-stage partial-record stations for........ 288
- Otter Creek Tributary (tributary to Ohio River), near Vine Grove........ 288

- Paducah, Massac Creek near........ 280,316
  - Tennessee River at Highway 60, near........ 277-278
- Paintsville, Levisa Fork at........ 51,293,317
- Parameter code, definition of........ 30
- Paris, Stoner Creek at........ 70, 297
- Partial-record station, crest-stage records
  - definition of........ 31
  - discharge at........ 286-291
- Particle size, classification of........ 31
  - definition of........ 31
- Pattons Creek River basin, crest-stage partial-record stations for........ 288
- Percent Composition, definition of........ 31
- Periphyton, definition of........ 31
- Perry Creek near Mayfield........ 290
- Pesticides, definition of........ 31
- Phytoplankton, definition of........ 31
- Pikeville, Levisa Fork at........ 48,292,317
- Pineville, Cumberland River near........ 198-201
- Plankton, definition of........ 31
- Pleasant Run Creek, at Crescent Springs........ 287
  - Tributary at Fort Mitchell........ 287
- Pleasant Run Creek basin, crest-stage partial-record stations for........ 287
- Pleasant Run Tributary near Falls of Rough... 289
- Poindexter Branch Tributary near Russellville........ 289
- Pond Creek (tributary to Salt River), near Louisville........ 117,306
- Pond River near Apex........ 144,311
- Poor Fork at Cumberland........ 150,311
- Prices Creek near Gradyville........ 289
- Priceville, Bacon Creek near........ 131,308
- Primary Productivity, definition of........ 32
- Publications of techniques of water resources investigations........ 38-39

- Radiochemical program, definition of........ 30
- Records of
  - Ground-Water Levels........ 23-25
    - Data Collection and Computation........ 23
    - Data Presentation........ 24-25
  - Stage and Water Discharge........ 13-18
    - Accuracy of the Records........ 17-18
    - Data Collection and Computation........ 13-14
    - Data Presentation........ 14-17
    - Identifying Estimated Daily Discharge.. 17
    - Other Records Available........ 18
  - Records of discharge collected by agencies other than the U S Geological Survey........ 18
  - Surface-Water Quality........ 18-23
    - Arrangements of records........ 19
    - Classification of records........ 18-19
    - Data Presentation........ 21-22
    - Laboratory measurements........ 21
    - On-site measurements and Sample Collection........ 19-20
    - Sediment........ 20-21
    - Water temperature........ 20
- Recoverable from bottom material, definition of........ 32
- Red Bird River near Big Creek........ 85,300
- Red River, (Kentucky River basin), at Clay City........ 90,301
  - Middle Fork, at Zachariah........ 287
  - near Hazel Green........ 89,301
- Return period, definition of........ 33
- Rhoda, Beaverdam Creek at........ 134,308
- Rhodes Creek Tributary near Owensboro........ 289
- Robbins, TN. Clear Fork near........ 237-247
- Rockcastle River at Billows........ 224,314
- Rolling Fork, near Boston........ 114,306
  - near Lebanon........ 112,305
  - near Lebanon Junction........ 115-116
- Rose Run Tributary near Olympia........ 286
- Rough River, at Falls of Rough........ 141,310
  - near Dundee........ 310

INDEX

Page

Rowena, Cumberland River near 270
Runoff in inches, definition of 33
Russell Creek near Columbia 124,307
Russell Fork, at Elkhorn City 47,292
at Haysi, VA 46

Salt River at Shepherdsville 109-111
Salt River basin, crest-stage partial-record stations for 288
gaging-station records in 106-117
Salvisa, Kentucky River at lock 6, near 93,302
Salyersville, Licking River near 63,295
Sassafras, Carr Fork near 79,298
Saxton, Clear Fork at 206,313
Sediment definition of 33
summary of hydrologic condition 5
Shepherdsville, Salt River at 109-111
Shilalah Creek near Page 289
Shopville, Buck Creek near 225,314
Smith, Martins Fork above 151-154
Martins Fork Lake at Martins Fork Dam near 155-177
Martins Fork near 178-184,311
Sodium-adsorption-ratio, definition of 34
Solomon Creek Tributary near Scottsville 289
Solute, definition of 34
South Benson Creek near Frankfort 287
South Elkhorn Creek, at Fort Spring 95,303
near Midway 96,303
South Rays Fork Tributary near Corinth 288
Special networks and programs 10
Specific conductance, definition of 34
Stage and water-discharge records, explanation of 13-18
Stage-discharge relation, definition of 34
Stamper Fork at Canoe 287
Station Identification Numbers 10-11
Stearns, South Fork Cumberland River near 259-269
Stoner Creek at Paris 70,297
Streamflow, definition of 34
Substrate, definition of 34
artificial, definition of 34
natural, definition of 34
Surface area of a lake, definition of 34
Surface-water, summary of hydrologic conditions 2
Surficial bed material, definition of 35
Suspended, definition of 35
recoverable, definition of 35
Total, definition of 35
Suspended-sediment, definition of 33
concentration, definition of 33
discharge, definition of 33
load, definition of 33
mean concentration, definition of 33
Suspended sediment, definition of 33
Load, definition of 33
System
Downstsream Order 11

Tallega, Middle Fork Kentucky River at 84,299
Tanners Creek at Mortonsville 287
Taxonomy, definition of 35
Taylorsville, Brashears Creek at 106,304
Temperature, measurements and field determinations, miscellaneous 292-316
Tennessee river, at Highway 60, near Paducah 277-278

Page

Tennessee River basin, crest-stage partial-record stations for 290
gaging-station records in 277-279
Thermograph, definition of 36
Time-weighted average, definition of 36
Tollesboro, Cabin Creek near 62,295
Tons per acre-foot, definition of 36
Tons per day, definition of 36
Total, definition of 36
coliform bacteria, definition of 26
organism count, definition of 30
recoverable, definition of 36
Total discharge, definition of 36
Total sediment discharge, definition of 33
Total sediment load, definition of 34
Town Creek (Kentucky River basin), at New Castle 288
Town Creek Tributary (Salt River basin), at Bardstown 288
Tradewater River at Olney 149,311
Tradewater River basin, crest-stage partial-record stations for 289
Triplett Creek, North Fork near Morehead 67,296
Tritium network, definition of 10,37
Trough Camp Creek Tributary near Olive Hill 286
Tygarts Creek, at Olive Hill 60,294
near Greenup 61,294
Tygarts Creek basin, crest-stage partial-records in 286
gaging-station records in 60-61

Van Lear, Johns Creek near 50,293

Ward Creek at Lewistown 289
Water-quality records, discontinued 371-376
explanation of 18-23
Water-resources investigations, publications on techniques of 38-39
Water temperature 20
Water Year, definition of 37
WATSTORE data, access to 25
WDR, definition of 37
Weighted average, definition of 37
Wells, springs, and miscellaneous sites numbering system for 12
Wells Creek Tributary near Washington 286
West Fork Drakes Creek near Franklin 136,309
Wet mass, definition of 27
Whippoorwill Creek near Claymour 271,315
White Mills, Nolin River at 130,307
White Oak Tributary near Montpelier 289
Williams Creek Tributary near Cartwright 290
Williamsburg, Cumberland River at 207-210,313
Winchester, Kentucky River at lock 10, near 91,301
Wolf Run at Cambridge Drive at Lexington 287
Wood Creek near London 290
Woodbury, Green river at lock 4, at 140,309
Wooton, Cutshin Creek at 83,299
WSP, definition of 37

Yellow Creek near Middlesboro 194-197,312
York Creek near Benton 290

Zooplankton, definition of 32

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CALENDAR FOR WATER YEAR 1986

1985

OCTOBER

S	M	T	W	T	F	S
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27	28	29	30			

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25	26	27	28	29	30	31

JUNE

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15	16	17	18	19	20	21
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29	30					

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13	14	15	16	17	18	19
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27	28	29	30	31		

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24	25	26	27	28	29	30
31						

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	1	2	3	4	5	6
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28	29	30				

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